

Programme for the implementation of a Regional Fisheries Strategy for the
Eastern and Southern Africa and Indian Ocean Region

Programme pour la mise en oeuvre d'une stratégie de pêche pour la région
Afrique orientale-australe et Océan Indien



Implementation of a Regional Fisheries Strategy ESA-IO

2012



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COMMISSION DE
L'OCEAN INDIEN

Implementation of a Regional Fisheries Strategy For
The Eastern-Southern Africa
And Indian Ocean Region

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INDIAN OCEAN
COMMISSION

Implementation of a Regional Fisheries Strategy
For The Eastern-Southern Africa and India Ocean Region

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LIST OF ABBREVIATION

ACP	African Caribbean and Pacific states
AZT	Aquaculture Zimbabwe Trust
BMU	Beach Management Unit
CA	Competent Authority
CBC	COMESA Business Council
CBT	Cross Border Trade
CBTD	Cross Border Trade Desk
CEPT	Common External Trade Policy (COMESA)
COC	Chambers of Commerce
COMESA	Common Market for East and Southern Africa
CoO	Certificate of Origin
CTTFP	Comprehensive Trade and Transport Facilitation Programme
CU	Customs Union
CZI	Confederation of Zimbabwean Industry
DFID	Department for International Development
DRC	Democratic Republic of Congo
EAC	East Africa Community
EC	European Commission
EDF	European Development Fund
EPA	Economic Partnership Agreements
EPA-TAPSS	Economic Partnership Agreement -Trade and Private Sector Support (Uganda)
ESA	Eastern and southern Africa
EU	European Union
FAO	Food and Agriculture Organisation
FAWG	Fisheries and Aquaculture Working Group (Zimbabwe)
FTA	Free Trade area
GCI	Global Competitiveness Index
GCR	Global Competitiveness Report
GHP	Good Hygiene Practice
GMP	Good Manufacturing Practice
GDP	Cross Domestic Product
GSP	Generalised System of Preferences
HACCP	Hazard Analysis Critical Control Points
HS	Harmonised System
ICBTA	Informal CBT Associations
ICT	Information and Communications Technology
IRFS	Implementation of a Regional Fisheries Strategy
IO	Indian Ocean
IOC	Indian Ocean Commission
IGAD	the Inter-Governmental Authority on Development
LVFO	Lake Victoria Fisheries Organization
MAAIF	Ministry of Agriculture, Agro-Industry and Forestry (Uganda)
MAMID	Ministry of Agriculture Mechanisation and Irrigation Development (Zimbabwe)
MCTI	Ministry of Commerce, Trade and Industry (Zambia)
MFN	Most Favoured Nation
MOIC	Ministry of Industry and Commerce (Zimbabwe)
NPWL	Nature Parks & Wildlife (Zimbabwe)
NTB	Non-Tariff Barriers
OCT	Overseas Countries and Territories
PRP	Pre-Requisite Programmes
PTA	Preferential Trade Area
REC	Regional Economic Communities

REFORM	Regional Food and Risk Management Programme
RoO	Rules of Origin
PACT II	Programme for building African Capacity for Trade II
PPP	Public Private Partnership
PRP	Pre-Requisite Programmes
RTFP	Regional Trade Facilitation Programme
SACU	Southern Africa Customs Union
SADC	Southern African Development Community
SCD	Simplified Customs Document
SEDCO	Small enterprise development Cooperation (Zimbabwe)
SFP	Strengthening Fishery Products Health Conditions in ACP/OCT Countries
SME	Small and Medium scale Enterprises
SMEDA	Small and Medium Enterprise Development Agency (Mauritius)
SPS	Sanitary and Phyto-Sanitary agreement
STR	Simplified Trade Regime
TAS	Trade Assessment Study
TBT	Technical Barriers to Trade
TNG	Tripartite Negotiating Group
TID	Trade Information Desk
ToT	Terms of Trade
TMSA	TradeMark Southern Africa
ToR	Terms of Reference
TR	Trade Readiness
TRD	Trade Readiness Document
TRQ	Trade Readiness Questionnaire
UEPB	Uganda Export Promotion Board
UFPEA	Uganda Fish Processors and Exporters Association
UIRI	Uganda Industrial Research Institute
USD	United States Dollar
WAFICOS	Walimi Fisheries Cooperatives
ZDA	Zambian Development Authority
ZNCC	Zimbabwe National Chambers of Commerce

SUMMARY

This report addresses a key result area of the SmartFish programme. Component 4 identifies a 'Trade Readiness Document (TRD)' as the main output in this context. From the points of view of generating regional value added and to support food security, intra-regional trade in fish products should be encouraged and expanded. The TRD study aims to assist the process of enhancing regional trade in fish products by improving Trade Readiness in the 20 SmartFish countries. The report is, however, a pilot study based on work in four selected countries. The findings would then be used to design and carry out a full study of the 20 countries based on an adapted Trade Readiness Questionnaire (TRQ).

The main activities included discussions with public sector authorities that constitute the trade enabling environment, and interviews with the private sector operators active in the fish product value chain. Region Economic Communities (RECs) such as COMESA and IOC have been consulted regarding strategic visions, to ensure that the outcome of the TRD study is in tandem. Additional information and ideas have been extrapolated from other SmartFish interventions and from broader assessments made by international bodies to deepen context.

Competitiveness of the involved economies was assessed based a set of commonly accepted principles. The level of competitiveness and the nationally provided trade enabling environment constitutes the operating framework for the private sector. A brief review of the most important factors of competitiveness as the macro-economic environment, institutional set-up, training, access to finance and market issues revealed that 3 of 4 countries belong to the group of factor-driven economies. Such countries compete based on their factor endowments—primarily unskilled labor and natural resources. Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. The fourth country has moved up ladder and is becoming efficiency-driven with more competitive and efficient production processes. Increases in product quality become necessary because wages have risen without the option to increase prices as the country is not yet price setting.

It was found both for the factor driven economies and the efficiency driven one that there are lacunae and gaps in part of the public sector service delivery system that constitute the enabling environment. Note that the variations in the seriousness of such between the pilot TRD countries, the more advanced the economy the less serious the problem. The most important problems are institutional:

- A Competent Authority is in place, but there is a lack of capacity regarding fish relevant SPS issues in border areas, and outreach services are limited.
- With one exception there is no systematic education in trade documentation, customs clearance and border procedures offered to SMEs.
- Targeted training for SMEs in management, technical aspects and quality assurance is low or missing as is Trade Promotion related support.
- There is virtually no support to product development.
- Access to funding and credit for SMEs is difficult if not prohibitive.

Products traded regionally mostly involve simple processing done to local tastes so that imported replacements are virtually non-existent. The exception is Tilapia, where price relationships are determinants for the level of competitiveness against the imported frozen product. Despite higher prices for local products regional consumer tastes now seems to favour the local product over the imported.

Initiatives from COMESA and other RECs are now underway to improve trade facilitation and assist the removal of Non-Tariff Barriers to trade (NTB). Tariff levels for fish products still exist, but are now handled under simplified trade regimes making trade easier. The COMESA template for removing remaining tariffs and the NTBs is generally accepted by the member countries.

Regarding the private sector operators and trade readiness differences were found for the two main economic

groups: a) Large enterprises often based on foreign capital, and b) SMEs locally owned and operated. For both groups a set of categories of business activities was applied to determine the level of vertical integration. Large companies display vertical integration and thereby indicated a good understanding of the importance and practice of trade readiness. Several large companies are now operating in the regional markets as product volumes and price levels are found still more attractive. Large companies know how to apply trade readiness in their strategic approach to market development, whereas SMEs displayed limited understanding and virtually no practice. The round of company interviews led to a modification of the trade readiness questionnaire template, which can be used in a full analysis of trade readiness in the ESA-IO region.

The role of functioning associations is pivotal for distributing the Trade Readiness Questionnaire, disseminating results and acting as vehicles for training and extension. They also play a vital role in making the fish value chain operators heard in the trade policy debate.

SMEs do suffer from a situation where the owner(s) is also the daily management, marketing manager and financial manager. This mix of roles centralizes decision making and virtually halts development ideas. For aquaculture the lack of guidance by the government in planning and production techniques has led to loss of investment. SMEs should be allowed to learn from 'star' large companies via centers of excellence. There was found a distinct lack of understanding of SPS requirements, trade and border crossing procedures, and trade readiness. The interviews therefore helped the process of adapting the TRQ. For the SME segment, associations are geared for public debate.

The report lists the important issues with common style pointers to the four countries. The five pointers will need to be detailed to the country specific situation. For the private sector operators the Trade Readiness Questionnaire is adapted to the SME condition, and can be disseminated to all 20 countries.

1. INTRODUCTION

The present assignment is the 'Trade Readiness Document (TRD)', which forms part of the overall Workplan for the programme: 'Implementation of a Regional Fisheries Strategy (IRFS) for ESA-IO countries' programme launched in February 2011. The overall programme with its four main components is commonly referred to as 'SmartFish'. The SmartFish Programme is financed by the European Union under the 10th European Development Fund (EDF 10) within a total financial contribution of Euro 21 million. The SmartFish Programme encompasses four Regional Economic Communities (RECs) and is executed by the Indian Ocean Commission (IOC) as the Regional Authorising Office in collaboration with the Common Market for East and Southern Africa (COMESA), the East Africa Community (EAC) and the Inter-Governmental Authority on Development (IGAD). Other regional institutions that may be consulted include the Southern African Development Community (SADC) and regional fisheries management organizations, such as the Indian Ocean Tuna Commission (IOTC), the Southwest Indian Ocean Fisheries Commission (SWIOFC), the Lake Victoria Fisheries Organization (LVFO), and the Lake Tanganyika Authority (LTA). The first phase of the Programme is planned to be implemented over a period of 31 months (March 2011 - September 2013).

The region defined as the SmartFish beneficiary comprises 19 countries: Burundi, Comoros, DR Congo, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Somalia, Sudan, South Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. All countries are members of COMESA (except Tanzania and Somalia) and the Tripartite Group negotiation process for the establishment of one large Free Trade Areas (FTA) for 26 countries. It is noted that the individual RECs are at different stages of trade liberalisation and integration, e.g. EAC is a Customs Union (CU) by name, COMESA

(including also most IOC countries) and SADC are established FTAs, whereas IGAD has not taken steps in this direction and is a structure with no particular intra-country trade agreement. The actual implementation of the CU and FTAs, however, indicates an ongoing process where regulations and procedures are not fully in place. Thus areas such as, common external tariffs, Rules of Origin (RoO) for certain products and lists of sensitive products, are not yet harmonised. Important aspects such as border crossing facilities and procedures also differ, and trade in highly perishable products such as fish still suffer from obstacles. In short the trade enabling environment has shortcomings that need concrete actions for enhancement.

This TRD report addresses Result Area 4M1.1: 'ESA-IO trade readiness requirements are outlined, developed and implemented for inclusion in national strategies', and as such forms part of this result area: 'Development of trade strategies at national and regional levels'; with the aim of contributing to an increased level of social, economic and environmental development and deeper regional integration in the ESA-IO region through the sustainable exploitation of fisheries resources. A main output of Result 4 is regional and national fish trade strategies aiming to increase and enhance inter-regional trade in fish products.

The SmartFish programme, Result 4M1, has a programme output as follows:

..... ESA-IO trade readiness requirements are outlined, developed and implemented for inclusion in national strategies....

The TRD is conceived as a pilot intervention that aims to identify the key requirements and obstacles to trade that have to be removed for the timely implementation of government policy that

support a trade enabling environment. Improved trade readiness for the private sector operators is one tool to be enhanced, in particular for Small and Medium-sized Enterprises (SME). It involves missions to four countries to discuss with relevant authorities and the resulting guideline should be replicable to the needs of the remaining 16 beneficiary countries of SmartFish. Towards this end a group of four countries was selected for visits by the TRD team¹.

In addition the activities of the team and the output should be coordinated with the sector strategic work already carried out by COMESA and IOC, so these RECs were also visited. The mission programme was originally planned to be fairly continuous in time, but due to other urgent SmartFish activities requesting also the participation of the TRD Team members the elapsed time spanned from end Nov. 2011 to May 2012.

Since Trade Readiness (TR) generally is a tool used by managers of private companies to assess the company's own resource base for increasing operations to engage more in regional trade, the main target group to be included in the country missions were sector actors such as fish and aquaculture producers, feed producers and traders, processors and traders. This private sector target group needs a systematic tool to base the TR assessment on. In more advanced economies the tool is a structured questionnaire that the managers can go through to get an idea of where relative strengths and weaknesses are found regarding market information flows, operation, technical and trade specifics, finance and general management. It helps indicate to management and owners the requirements to adjust operations, budgets and align other resources and management aspects in the direction of more trade.

The body text of this report is a summary of the findings across four countries aiming to identify some common issues and issues that reflect on the different roles played by the selected countries in fish product trade.

During the briefing discussion in the first country visited, Zimbabwe, the immediate objective was refined to focus effort on:

1. The role that Government institutions and agencies play in building a trade enabling environment for the SME segment of the fisheries industry, including also aquaculture
2. The steps necessary to involve the sector stakeholders more directly in the trade policy discussions for fish products.
3. An understanding for the relationship between food safety issues and food security
4. The status of trade readiness as regards the SME segment by presenting a structured questionnaire to the sector stakeholders

The standard TR Questionnaire (TRQ) needs to be adapted to the resources available and general condition and situation for the Region's enterprises engaged in the fish product value chain. The adapted TRQ is the key output for the private sector and will be circulated to potentially all actors in the 20 countries for a more comprehensive analysis (it is included as annex 3). In addition a summary of TR issues both for the public sector and the private sector operators will be annexed under separate cover for each country visited).

¹ Mr. Bent Larsen, Team Leader and trade expert; Mr. Blessing Mapfumo, Aquaculture and market expert

2. METHODOLOGY

The TRD intervention is normally carried out for one country at a time, with focus on the particular industry needs. However, as the SmartFish has a regional perspective, the mission to the selected group of countries also becomes a discussion of methodology, where lessons learned from the first four country visits will serve as base for further elaboration and refinement of methodology, and for the outputs: the government oriented guideline and the TR questionnaire for the industry.

Due to its origin in advanced economies, where larger companies, with easier access to other than company internal resources, dominate, the standard TR questionnaire assumes higher levels of business activity, diversity and analysis skills than normally seen in African fish trade companies. Additionally regional trade in fish products remains an activity that has been characterised by informal trade by small scale trades on the continental side of the Region². However, very recent trends clearly indicate that regional markets of fish products are there, are growing, and do display interesting price levels, which more substantial players have found commercially interesting. Thus the situation is ripe for governments and authorities to take further steps to promote formalisation of regional trade; which in a limited number of cases already takes place, as the study shows. An objective therefore is to adjust the TR questionnaire in general towards the reality of the regional fish trade companies appreciating their actual sizes and more limited resource base and access issues. For perishable fish products in particular compliant procedures reflecting the food safety parameters would have to meet the internationally agreed standards and norms as requested under WTO rules and the Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT) sub-agreements.

The TRD pilot study is divided into three phases (see below), where it is a point that at the end of each field mission the lessons learned regarding both the trade enabling environment and the elaboration and application of the TRQ are drawn into the refinement of methodology.

2.1. Work programme and approach

Phase I – Desk study

The desk study phase was planned and executed in several stages, where information gathered during one mission was included in the planning of the next to optimise and adjust methodology. Phase I involved four main activities.

1. Selection of the countries to be visited. The set of criteria used include:
 - A continental country that is either a main producers/exporters of aquaculture products or an emerging/established importer of regional fish products
 - A country with a high level of industry organisation and functioning institutions for a trade enabling environment
 - A country with a highly organised fishery sector where good practices are discernible
 - A country facing institutional deficiencies and with potential for fishery/aquaculture sector development.

Originally the TOR prescribed only two countries, but it was soon realised that a larger segment was needed to reflect different aspects of both government effort and industry composition throughout the region.

² See *Trade Assessment Study, SmartFish, September 2011*

The countries selected according to the criteria were: Zimbabwe, Zambia, Uganda and Mauritius. The selection would also make it more practical in terms of establishing dialogue with the RECs to be included COMESA (Zambia) and IOC (Mauritius).

Information related to competitiveness

Competitiveness can be defined in different ways. For reasons of consistence and comparison when inflating the pilot study into coverage of all 20 SmartFish countries, the competitiveness definition is based on the work by intentional bodies where a model's definition allows models for quantitative analysis. Scrutiny of sources of information regarding the actual status of competitiveness and of the trade enabling environment for the selected countries was carried out. The key sources used include:

'Global Competitiveness Report 2011-2012'. World Economic Forum. November 2011
Doing Business 2012, The World Bank Group (for the four countries to identify some of the key aspects for discussion during field visits)
Enabling Trade in the Greater ASEAN Region, Findings from the Enabling Trade Index 2010, World Economic Forum 2012. This publication is important as the criteria set for measuring the index are defined by key players for business life.

Collection and collation of basic data

Data on regional trade flows, the trade enabling environment and industry composition were collated from different sources. Other SmartFish interventions were used as sources to assure close coordination and integration of findings and conclusions with a view to optimize the use of funds, in particular:

The Trade assessment study (TAS)
The Workshop Programme
The Market and Marketing Study
The Training for Fish Quality Improvement:
Training Needs Analysis

It also includes information gleaned from national internet sites to obtain a snap shot of the macroeconomic environment, national institutions related to trade and export promotion, SME development and food safety issues. This would be used to assess the level of governments' actual support to further regional fish product trade and the willingness (and capacity) to improve on such support.

Information on the composition of the national industries and professional associations with a view to assess the importance of industrial organisation for trade readiness was collated as well from own studies supplemented by information gathered from internet sites.

The national Focal Points, important public sector agencies, and known professional associations were contacted before each field mission.

Preparation of the field missions.

Filed missions were originally planned to be consecutive, but the inclusion of additional countries and other urgent SmartFish assignments received by the team leader, resulted in an interruption of the field visits' continuity. However, from these additional activities some important information also proved useful for the TRD.

Phase II – Field missions

The field missions took place as follows (the Consultations held in each country and with the RECs are appended to the country annexes):
Zimbabwe December, 04th to 15th, 2011
Zambia (1) and Mauritius (1) January, 08th to 23rd 2012
Uganda, Zambia (2), and Mauritius (2) April, 15th to May 02nd 2012

It is noted the Zambia was visited twice, which is due to the fact that a fire at COMESA headquarters in late December made it impossible to arrange meeting there with relevant officials. The second visit to Zambia therefore only involved TRD related discussions with COMESA officials.

Likewise for Mauritius where the first visit in fact was consumed by the preparation of IOC (and ESA) for the upcoming technical negotiations with EU on Economic Partnership Agreement (EPA) issues related to fisheries. These preparatory activities also required the participation of the TRD Team leader. The second visit therefore focused more on TRD data collection.

Phase III – Reporting

The report drafting was carried out over the period January-June 2012. In the period communications with COMESA and IOC continued regarding updates and viewpoints.

2.2. Brief review of relevant interventions

This section contains a brief description of the key development partner funded programmes that address issues relevant to the TRD.

Strengthening Fishery Products Health Conditions in ACP/OCT Countries

ACP Secretariat - Funded by EuropeAid with contributions from UK and The Netherlands, 2002-2010, Budget Euro 48 million.

This large scale project covered all ACP regions including also ESA-IO countries. The main purpose was to build and improve the trade capacity of the participating countries within fish products by enhancing compliance with the WTO SPS agreements. The immediate objective was to assure compliance with the valid EU food health and safety regulations, both for public section control and inspection authorities and also for the private sector operators in fisheries, aquaculture and processing/storage. Regarding the private sector part visits to 22 countries and 89 SME and larger companies were carried improving the SPS understanding and status; some of enterprises were subsequently approved for exports to EU markets.

TradeMark Southern Africa (TMSA)

Funded by the UK's Department for International Development (DFID) - 2009-2014, Budget £100 million.

TMSA is a follow on from Regional Trade Facilitation Programme (RTFP) funded by DFID between 2003 and 2009. The overall TMSA goal is 'Sustained rapid, inclusive growth and poverty reduction in the SADC and COMESA regions'. The purpose of the programme is 'To improve southern Africa's trade performance and competitiveness for the benefit of poor women and men'. TMSA is hosted by the Common Market for Eastern and Southern Africa (COMESA). The main, but not exclusive, beneficiary is the Tripartite of Regional Economic Communities (COMESA, East African Community (EAC) and Southern African Development Community (SADC). The programme supports the strategies of the Regional Economic Communities (RECs) to deepen economic integration, and increase trade, infrastructure and growth in the Southern Africa regions. TMSA

also directly assists the World Trade Organisation (WTO) Least Developed Countries (LDC) Group in Geneva to negotiate the Doha Development Agenda so as to allow LDCs to fully benefit from the multilateral trading regime. Among others assistance is provided for the improvement in trade facilitation and border crossing issues.

REFORM (with CBT and STR), Funded by the EU, Implemented by COMESA

The large scale Regional Food and Risk Management Programme (REFORM) has as overall objective to contribute to the sustainable reduction of vulnerability to food insecurity and poverty in Eastern and Southern Africa. It has a number of components where in particular two are of direct interest to the TRD:

A. The Cross Border Trade project (CBT).

The CBT REFORM component started in April 2009 with the overall objective to contribute to improved food security by liberalising cross border trade in particular for food. An increased trade in food should lead to a reduced price differential between surplus and deficit areas on either side of the border providing an incentive for farmers to invest and supply and so lead to improved food security. The CBT project has set up focal points in the Ministry of Trade in 10 countries whose governments in 2006 agreed to pilot the STR. These countries are Zambia, Zimbabwe, Malawi, Uganda, Kenya, Rwanda, Burundi, Sudan, DR Congo and Ethiopia.

The concert originates from Zambia, 1997, and is aimed to improve conditions for small scale traders conducting informal (non-registered) trade by forming associations for these; the associations are now called Informal CBT Associations (ICBTA). The idea was further to simplify trade formalities at reduced costs for the organised small traders. The project started in April 2009 and was set to run for 2 years until June 2011, but an extension to January 2012 was granted, and according the discussions held, may be continued under the PACT II programme.

At COMESA, the project has set up a Cross Border Trade Desk (CBTD), which works with Cross Border Traders and issues pertaining to small traders. The desk also seeks to coordinate and inform stakeholders of all activities regarding cross border trade including the EAC and SADC.

A dedicated website plays an important role³ in the flow of information. At national level the CBTD has helped establish Trade Information Desks (TID) in each a country at ministerial level, who assist the establishment of ICBTAs, and in the border station areas, and TID officers at the border crossings. The TID officers assist the ICBTA members with completion of the necessary forms (and also helps build the association).

B. Simplified Trade Regime Implementation (STR)

The other agenda of the CBT desk is to help governments to implement the STR. The CBT REFORM has helped establish the STR in the 'southern zone' of COMESA between Zambia, Zimbabwe and Malawi, and is now assisting the same process in EAC countries and DRC. The implementation of the STR is subject to an ongoing review to see how it can be improved before rolling it out. The STR has three elements:

- A simplified Certificate of Origin obtainable from Customs as the trader leaves the country.
- A bilaterally agreed Common List of goods that may use the STR, and these lists are also displayed in the border offices and offices of the ICBTA/TID.
- A simplified Customs document, that is filled in as the trader enters the country he is exporting to.

In order to help the small trader the idea of having a simplified certificate of origin developed, Participating governments have agreed that for small scale trade in goods that originating from within the FTA, traders will not need to carry a full Certificate of Origin (normally only issuable in the capitals). The Common List of Products agreed between two neighbouring member States will serve as "the Certificate", this list includes most food items, thus the negotiation of the list is bilateral and not FTA wide). The certificate, called the Simplified Certificate of Origin, would be issued at the border by the customs officer and would be for consignments of USD 1000 or less.

A customs declaration is needed for revenue collection, statistics and administrative purposes. Under the COMESA version of the STR, the trader fills in a Simplified Customs Document (SCD).

This allows trade information to be captured for statistics⁴.

The experience so far is partially positive in that ICBTA are formed and some trade is registered, and partially negative in that the level and pace of capturing and formalizing more trade is to some extent hampered by the small charges and duties levied.

The experience so far is partially positive in that ICBTA are formed and some trade is registered, and partially negative in that the level and pace of capturing and formalizing more trade is to some extent hampered by the small charges and duties levied. In direct terms many small scale traders still find it cheaper and less time consuming to revert to the informal way. In addition, more substantial traders do now parcel their Common List consignments into STR qualifying parcels and send these across by bicycling traders. In particular, for fish products the STR has limited value as the only bilateral Common Lists known between Malawi-Zambia, Malawi-Zimbabwe, and Zambia – Zimbabwe, do not include fish products. Thus STR is not applicable and there is still some way to go (or bicycle) before the informal trade in such products will become registered.

ACP Fish II

The ACP Fish II Programme is funded by the EC. There is a long range of activities, with focus on the raw material production side; however, the most relevant activity to the TRD is the studies carried out on informal trade in fish products. The study carried out on trade between Uganda and DRC concludes that the informal trade takes place for a range of fish products as fresh, dried, salted and smoked products. Most of the products are based on species such as farmed *Clarias gariepinus* or African Catfish. *Oreochromis niloticus* or Nile Tilapia (locally fished or farmed), and the fished small pelagic *Rastrineobola argenta* called Dagaa (Tanzania), Omena (Kenya), Mukene (Uganda) and Kapenta (Zambia, Zimbabwe), even *Lates niloticus* or Nile Perch based products including heads and frames are traded this way. Other species are also emerging in this trade such as Catfish spp. There is no quantitative estimate of the traded volumes.

³ Visit: www.cbtcomesa.com

⁴To the benefit of the RISP programme, implemented by COMESA, specifically seeks to improve the availability of statistics in the region. Progress is being made, with a focus upon statistics to support continued economic integration (such as trade liberalisation at FTA or CU level).

2.3. Data collection method

Production Trade data

In general the raw data have been sourced from earlier SmartFish activities, in particular:

- The Trade Assessment study (where intra-regional production volumes, historic trade flows and direction of trade are found alongside indicative price levels and terms of trade for fish products)
- Market Assessment Study (Supply and Demand), 2011 (provides trade flows and products trends in important regional markets)
- Value Chain Analysis of Artisanal Fisheries for Mauritius and Rodrigues, 2011 (detailed analyses of the role and weight of the various links in the small scales fisheries sector)
- Export promotion agencies
- Investment promotion agencies,
- SME support and development authorities
- SME bank and credit delivery facilities
- Ministry of Trade (the relevant foreign trade department)
- Chambers of Commerce (depending on mandate and financing the organisation in some cases in more private sector affiliated)
- Revenue and Customs Services
- Ministry of Agriculture/Fisheries/ Environment (mainly the fisheries and aquaculture services)

Where possible an update of the information has been through discussions with key stakeholders (processors and traders, professional associations, public authorities etc.). In addition the TRD team has taken advantage of its own recent work on trade patterns for products based on Nile Tilapia and Kapenta. The study in reference revealed important and very recent volume and price trends showing a clear picture of growing trade opportunities in the Region.

Trade Readiness Information

Trade Enabling Environnement

The important aspect of assessing the public sector's effort towards building a trade enabling environment is based on discussions with relevant authorities in the four countries. In accordance with the SmartFish priorities the SME oriented enabling environment is in focus, but also important initiatives to the benefit of larger scale operators are included when found relevant for positive side effects on SMEs. It is noted that the structure and organisation of the public sector do vary considerably between the four countries. To some extent this reflects directly the level of economic development and liberalisation of the economic sectors and trade. Relevant authorities may therefore have different affiliations into government structures, different mandates and means available as regards their role in supporting the private sector. A given authority may cover more than one aspect/portfolio. The authorities selected are grouped as follows:

It is part of the objective to identify what is deemed 'good practice' in one country, and thereby act as a proactive agent in promoting and executing regional trade, which then may serve as inspiration in other countries, where the trade enabling effort lacks behind. In fact limited or poorly designed mandates and lack of resources (legal, human and funding wise) may prove an obstacle to trade.

Private Sector Operators

Trade readiness is a private sector oriented activity. Hence the bulk of the effort has been to meet the various players in this sector with focus on the SME segment. However, also large players have been included as these often have well established trade networks and hence have completed their own TR strategy. Such players can be used as 'good practice' cases or be seen as 'stars' for the SME segment and for sector development in general. Knowledge on actual consumer preferences and tastes, trade methods and patterns, are lodged with larger companies. As policy the TRD team has decided to keep company level information confidential as some businesses may be sensitive to an exposure of their strategic considerations, thus data are presented summarised and in anonymous form in this report.

It has been a key point to identify organisational structures at the sub-sector level that can speak on behalf of a group of operators. Such organisations can on the implementation phase of SmartFish be used as vehicles for delivery of training and technical assistance (and not directly to one SME operator only). So before leaving for field visits the team visited webpages of national level associations for fish producers, processors and traders. In addition the SmartFish focal points were contacted with this objective in mind. Professional

associations were contacted directly as well, but as expected these almost exclusively catered for large scale operators.

Identification of the level of association for the SME segment was done mostly upon arrival in the country since such information is not available elsewhere. The main reason for the difficulties in identifying such SME associations is their tendency to be very small in capacity and often managed by one of a few families acting as 'fire souls'. Such associations are not necessarily formalised or registered with authorities, and tend to focus on issues of a quite local nature as the fisheries of one species in one lake/water body. Nevertheless such associations may have the potential to become a voice of the SMEs in

the national debate on strategy and a delivery mechanism for SmartFish Technical Assistance (TA). Finally, fisheries relevant Non-Governmental Organisations (NGOs) were consulted.

3. BACKGROUND AND COMPETIVENESS

3.1. Regional Trade and Markets

Historically intra-regional trade has not played an important role for the four TRD countries⁵. From the point of view of regional integration, this situation is close to lamentable. Efforts should be made to expand the intra-regional trade as there is ample room for improvement. However, there are clear indications that some players seriously consider these markets to display growth potential at a commercially viable level.

Formal trade

It is the ambition of the RECs and their member countries to formalise trade that today is not registered. Registration would provide more precise information on resource use, and also secure the Governments higher level tax revenue as most fish products are not allowed on the bilateral common lists (see above). In particular, for fish products that can play a strategic role in food regional security, this of course has priority. The existing formal trade in fish products is described below by main raw material base

Tilapia Products

One large scale Zimbabwean player has made direct investment in neighbouring countries to take advantage of being the first important producer/processor/trader in that part of the SmartFish Region. The trade is on a formal basis. Tilapia based products are the key products traded between these countries. Fresh on ice, whole round and frozen gutted tilapia constitute increasingly important volumes in this trade.

The Zambian market has recently shown strong demand also for fresh whole round fish, which

is produced at lower cost. Such products are marketed mostly in Zimbabwe, Zambia, South Africa, and Mozambique, but markets in Namibia and Angola are also actively trading Tilapia. The limiting factor to rapid growth in this trade is the scarcity of cold chains. This limitation pushes the unit costs up.

Whole frozen tilapia has already gained foothold. However supply is short of demand. Volume deficits and price ranges in these regional markets are presented in table 1 below. Zambia and DR Congo are the main markets with combined supply shortage of some 40,000 tonnes in 2010.

Imports of frozen whole tilapia from Asia into the region have been the main supply source for some time. These products sell at prices of USD 1.25/kg or well below the local production cost. An advantage for local aquaculture is that local producers are in a better position to make product adaptation to the local consumers' taste. In Zambia the team was informed that fresh on ice tilapia from Zimbabwe is preferred over the frozen imported products, mostly as the sizes of the fish and the taste are preferred. The team also witnessed the arrival of a new shipment of Zimbabwean tilapia that was sold very quickly in a virtual fight between local trading women and housewives.

Despite the price of the product being close to twice that of the Chinese frozen product (an estimate of sub-regional market sizes and prices are presented in the Table below).

⁵ The value of this trade is relatively low compared to the total value of both exports and imports. Only 1.2% of the total export value is exported to countries within the region, while 4.3% of the value of imports comes from the region (see TAS table 3.1.3 and 3.1.4)

Table 1: Prices and demand gap for tilapia in some countries

Country	Indicative Retail Price range per kg whole gutted fresh/frozen tilapia	Approx. current shortfall per annum (tonnes)
Namibia	S\$3.00 – 4.50	>5,000
South Africa	US\$4.50 – 5.50	>10,000
Botswana	US\$4.50 – 6.00	>5,000
Mozambique	US\$4.00 – 4.50	>10,000
Angola	US\$7.00 – 9.00	>10,000
Zimbabwe	US\$3.00 – 4.00	>7,500
Zambia	US\$2.50 – 5.00	>20,000
Malawi	US\$2.50 - 4.00	>10,000
DRC	US\$2.00 – 2.50	>20,000

Source: INFOSA in collaboration with National Liaison Officers in the SADC Member states mentioned, updated 2010. Note that these are conservative figures.

Prices vary for a number of reasons; in major towns and cities prices tend to be higher. In some cases, farmed fish has been noted to attract higher prices than wild fish. It is noted that prices are very high in Angola and in some markets in the DRC, but the cost of distribution can also be high.

Nile Perch Products

Other TRD players have similar considerations and in fact have carried out small scale regional trade. Most of these are medium sized processors of fresh on ice and frozen Nile Perch; and whole frozen and fillet products of Tilapia. The main markets are DRC and South Sudan. Volumes and prices are not known, but the players interviewed indicate that product can reach as far as Kinshasa and still remain competitive.

Tuna and by-catch

Another recent trend for new product types is emerging. By-catch from tuna is transformed into minced frozen fish meat and also into frozen ready-made dishes⁶. Since these products are low cost, small markets have developed in the East African coastal cities. Producers are also marketing red tuna meat, which has only limited value in external export markets, but is appreciated in eastern Africa as well. There is no information on historical trends or even recent volumes marketed for these new intra-regionally marketed product types.

Informal trade

Informal cross border trade in fisheries products is widespread in the Region, although by its very nature this trade is difficult to document and verify. While informal trade was the subject of another recent study⁷, no specific study of informal trade in the ESA-IO region has been done in connection with the present study.

In Southern and Eastern Africa, informal trade is thought to be particularly widespread in artisanal fisheries. In Tanzania, for instance, Dagaa is carried across borders in small quantities of 20 - 40 kg to avoid taxation. A similar pattern is valid for the trade across to borders of Uganda/DRC, Uganda/South Sudan, Uganda/Rwanda, Zambia/DRC, Zimbabwe/Zambia, and Zimbabwe/Mozambique. Some of the informally traded products are described below.

Nile Perch and Tilapia Products

The types of products based on these species are the same as described above. Informal trade in this case involves the transport of full or partial truck-loads of fish product arriving at the border. The trading company, which is always registered formally, would have to follow rules and pay the customs duties, which is both a time consuming procedure and has a cost tag. Instead the trading company may compartmentalise the load into small non-dutiable parcels, and pay bicycling

⁶ Information from interviews with producers in Seychelles and Mauritius

⁷ ACP Fish II: Action Planning for Improved Regional Fish Trade for Sustainable Fisheries Management. Programme Activity 2.2.

traders to carry the goods across informally. In some cases the product is just transported across the border as part of the truck load itself in disguise (or hidden) among other kinds of agricultural produce or commercial products, which in effect is smuggling. Fines are to be paid if caught in the act. However, smaller amounts than fine levels can change hands but such funds rarely reach the Government's coffer.

Another product that is also highly appreciated both locally in the riparian countries and in neighbouring countries is the fish heads and frames of mostly Nile Perch, the wastes from filleting. According to traditional/cultural beliefs the meat attached directly to the bone has more taste and is considered 'healthier'. The team saw how the heads and frames were left piled on a concrete slab in open air inside the factory fence. After some time in the sun the wastes were loaded and stacked on small trucks and covered by tarpaulins not cooled. Transport to nearby markets, but also after some 8 to 10 hours of driving would reach other domestic markets or border areas for delivery to the neighbouring country. At that time the taste indeed would be fishy and spoilage would be well underway.

Dagaa, Kapenta, Mukene, Omea

This small pelagic fish is in fact a group composed of different sub-species that have several commonly used names. It is fished by using different types of boats and gear from industrial type catamaran with lift nets, scoop nets and even beach netting (the latter is not sustainable as it damages the recruitment of juveniles)⁸. The quality of the product depends both on how the catch is made and on the post-harvest handling and processing method applied. A healthy method is key for the potential local value addition and trade.

Most Dagaa is sundried on the beach around the Rift Valley (lakes Victoria, Albert and Tanganyika), which leaves a lot to be desired quality-wise as the product in humid conditions easily gets infested (organically contaminated) by birds, rodents and soil borne bacteria. It is also full of sand. The post-harvest loss in the wet seasons is up to 70%. Most of the product is destined for animal feed uses. However, Dagaa is a healthy protein rich product and if dried on coverable racks, as at Lake

Kariba, protection against rain and animals/birds produces a quality product. Racks are guarded by staff to scare off birds and to apply the covers. The quality is much better and losses are reduced to 5- 10% according to Kapenta fishermen and processors⁹. Trade in this quality of product is for human consumption, but also the lower quality is traded domestically and even exported to regional countries as DRC and South Sudan. Such product is traditionally seen as important as it provides protein input to the diet both locally and across the borders. The dried products are transported to the border by truck and the informal crossing is made by bicycle traders or walking persons hired just for that short distance.

The value chain indicates that for the simplest products quite a few actors are involved, whereas for the better quality products the chain is shorter and higher prices are fetched. In 2010 experiments on how to make value added products were carried out¹⁰ indicating that products such as silage (for animal feed mixing) and industrial level drying could be of interest as the post-harvest loss would be reduced to 3-5%, durability of the product would increase and the quality of the product would meet food safety regulations. Quality products from some Tanzanian markets have been exported to Asia.

Catfish

African catfish is grown in aquaculture schemes sometimes organised in cooperatives. Processing is simple slaughtering and sometimes filleting. End products are mostly traded domestically by using simple distributions systems. In beat with the growing aquaculture segment of this sub-sector, the increased volume of output now has to travel farther to find markets; the volumes that make it to border crossings are still insignificant and are traded informally as above.

A new product based on catfish mince has been launched recently. The product is in form of a sausage. It is developed by a local entrepreneur, who is also working for the cooperative structure, in cooperation with the Uganda Industrial Research Institute (UIRI). The sausage is still produced at the UIRI facility acting as an incubator. However, the meat processing

⁸ 'Dagaa value chain analysis and proposal for trade development'. SmartFish, 2011

⁹ Informed by the Lake Kariba Kapenta Producers Association, Zimbabwe

¹⁰ 'Testing of different processing methods for Mukene for human consumption and fish meal in Uganda', ACP-ASP, Oct. 2010

unit at the UIRI facility crams meat, poultry and fish processing into a few shared rooms, where cross contamination is unavoidable. The UIRI facility would need to be up-graded fundamentally to meet food safety standards. Commercial production of the sausage is planned, but a number of obstacles have to be mitigated to balance cost and price relationships such as finding suitable land or a ready building, processing technology, and financing. The end product is today a frozen sausage, which when thawed has a good consistence and taste. This product can be easily distributed in city areas where cold chains exist. It is already sold in local upper end restaurants and some Kampala supermarkets.

When the product in its present form was introduced and the SmartFish Trade Event in Lusaka, April 2012, the reception was overwhelmingly positive.

Further research into other value added methods to reduce dependency on cold chain distribution should be carried out, for instance smoked sausage should be attempted alongside the frozen product. This way the product may also find easier inlets into the regional markets - a lift for the catfish aquaculture with likely important socio-economic benefits.

Conclusion

Formal trade regionally following the standard procedures with Certificate of Origin (CoO), Health Certificate, Custom's Declaration and Invoice is a fairly recent undertaking. It is done mostly in the cases of whole round fresh on-ice or frozen Tilapia (e.g. from Zimbabwe to Zambia), and similarly Nile Perch products from lake riparian countries to DRC and South Sudan.

A variety of traditional fish based products are today traded in small volume non-dutiable parcels across regional borders. Most of this trade consists of fairly simple products with little value added based on Nile Perch, Tilapia, Dagaa and Catfish. This trade is mostly informal in that the volumes and values are not registered with the customs services. No CoO or other trade documents are prepared or assessed. Putting an end to informal trade in fish products would contribute towards controlling the illegal fisheries from landing undersized fish and thus protect the stocks from overfishing and, in addition other benefits would accrue:

- Formalising trade would help the regional integration and development process
- Increase customs revenues
- Facilitate more accurate data collection on trade flows, and
- Monitor compliance with technical standards on food safety and sanitary conditions.

At the same time, cracking down on informal trade could also slow down trade flows because of the cumbersome and lengthy border procedures that are part of formalised trade. This can pose a particular problem for the perishable fish products. The COMESA executed REFORM ICBTA intervention initially showed some effect as some small scale traders got organised and followed the simplified and low cost STR procedures. However, for small scale traders the volumes and values carried are not substantial but removing just a small share of the trade margin as tariff and charges has negative and very direct effect on their economy and livelihood; it may cut 1/5 of a daily earnings. Hence in the second wave some small scale traders dissociated themselves and resumed the faster and more economically rewarding malpractice of informal trade. More recent efforts to develop integrated market structures in the border areas including also cold store capacity may add an advantage to those getting organised and thereby gain access to the cold stores.

It is also important to bear in mind that informal trade can provide important income and employment sources for many families, and in particular women, who play an important role in this economic activity. Thus, measures to formalise trade will need to ensure that the associated livelihoods are not undermined, but rather improved, for instance by speeding up transaction procedures and reducing hassle and STR trade costs at the borders.

3.2. Competitiveness

There are different ways of defining what constitutes the competitiveness of an economy and what the key elements in measuring it would be. In general terms competitiveness can be defined as continually sustained increases in productivity resulting in higher wages and living standards. It is also characterized by increasing export market shares regionally and internationally. Competitiveness, therefore, is demonstrated

by the product's ability to meet the test of free export markets while expanding real income. The competitiveness of a commodity is however equally dependent on the production in other countries, inherent and hygienic quality in the case of fish products and also availability of similar raw material which could be used as a substitute in the local market.

In this report the definition of competitiveness follows the thinking of the World Economic Forum (WEF). This institution has focused on the thinking of senior and influential business managers around the world who know the business conditions. Thus real life elements of the competitiveness situation for a group of countries and their businesses are part of this definition: "Competitiveness (is) the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be earned by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates. In other words, a more competitive economy is one that is likely to grow faster over time."¹¹

The concept of competitiveness contains both static and dynamic components. Although the productivity of a country determines its ability to sustain a high level of income, it is also one of the central determinants of its returns to investment, which is one of the key factors explaining an economy's growth potential.

Competitiveness is not based exclusively on prevailing conditions in the macroeconomic environment such as cheap labour, special tax exemptions, interest rate policy or continual devaluation of currency. It is based on generating more value through improved productivity, quality, service and innovation. Competitiveness has also been shown to be an intensely regional and private sector-driven phenomenon, characterized by clusters of supporting and competing enterprises. Effective business strategies are the generators of competitiveness. In short, competitiveness for the fish product depends on the four TRD countries' ability to produce fish products efficiently that can compete with imported products (for instance Tilapia from Asia) in the local/regional markets. The role of the government is to generate an

effective platform for competitive enterprises. Government reforms alone are a necessary but not sufficient cause, as has been demonstrated by many countries which have undergone structural adjustment reforms but have not achieved rapid and sustained growth. Competitiveness is not about the ability of governments or donor agencies to pick winners and losers at the industry or firm level. This has been shown to be extremely difficult and for every success story there are other examples of failure and great waste. However, government does have an important role to play in facilitating investment in capital, investment in human resources, the freeing up of untapped resources, strengthening the efficiency of market forces and the ability of entrepreneurs to translate their visions into reality. Growth in productivity is driven by many factors that can be grouped under three major headings:

- Macroeconomic conditions include favourable policy at fiscal, monetary, open trade regime, and other broad and overarching levels that are a necessary but not sufficient cause for growth in production and trade.
- Microeconomic conditions refer to such elements as tax codes, infrastructure, utilities, regulation, education, administration, and many other factors influenced by both the private and public sectors that affect the day-to-day ability of businesses to compete. This also includes support via export and investment promotion and collation and dissemination of market intelligence.
- Quality of business strategy refers to the choices business leaders make about where and how to compete and how to position their companies. It also refers to their effectiveness in implementing their plans and their efficiency in managing their operations, in particular the aspects of increased productivity and efficiency are important

To achieve competitiveness, effort must be devoted to all three of the key competitiveness components. Based on the definition WEF has developed a method of measurement called the 'Global Competitiveness Index (GCI)', it is a composite encompassing 12 pillars of

¹¹ 'Global Competitiveness Report 2011-2012'. World Economic Forum. November 2011 (GCR), page 5

competitiveness aspects where the scoring is based on interviews with government and business managers. It has been calculated annually since 2005 to an increasing group of countries now counting 142.

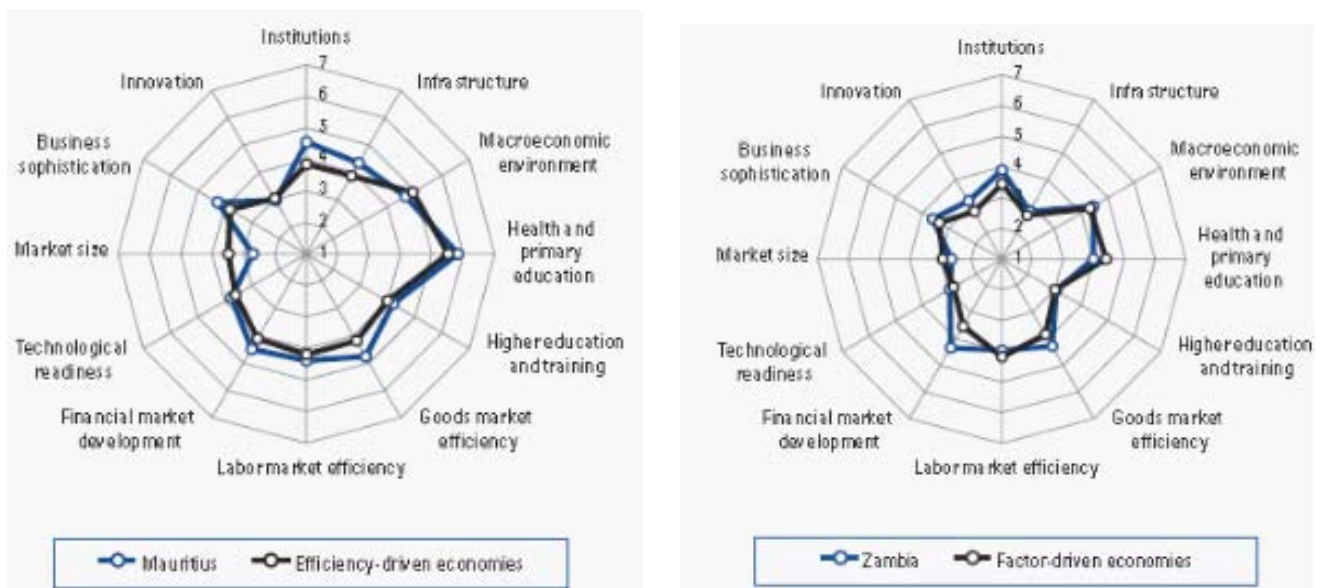
The GCI pillars are used to group countries according to three stages of development and identify the key drivers that may cause the graduation of a country to a more advanced stage. The relevant stages of development for the four TRD countries are:

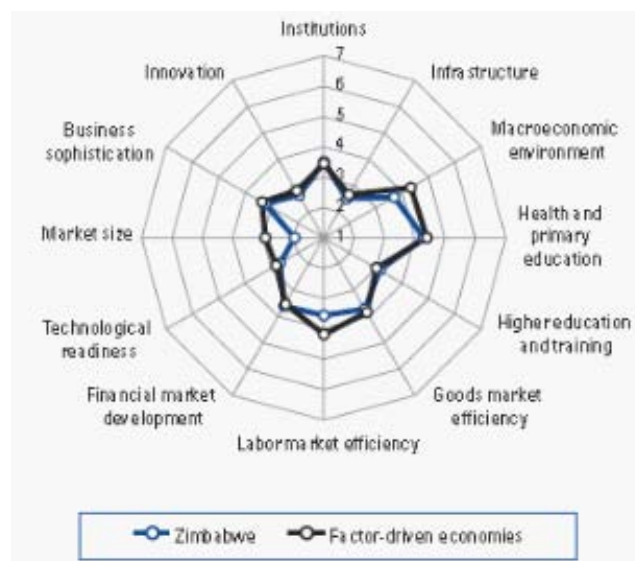
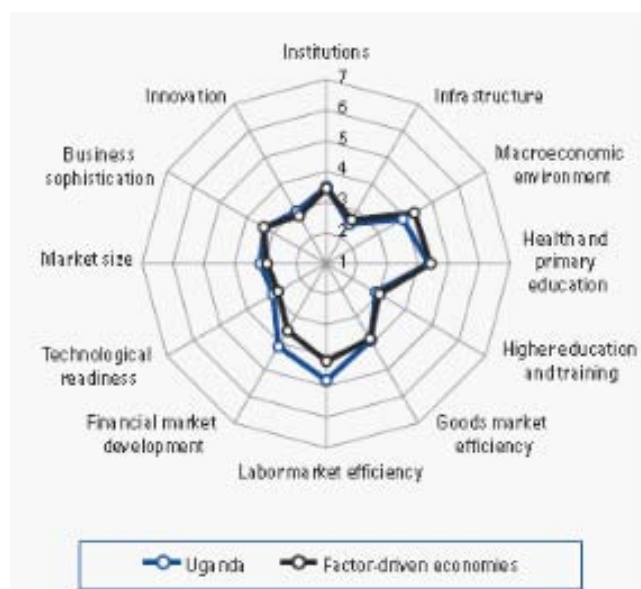
- a) The factor-driven economy competes based on factor endowments—primarily unskilled labour and natural resources (such as water bodies and fish). Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. Maintaining competitiveness at this stage of development hinges primarily on well-functioning public and private institutions (pillar 1), a well-developed infrastructure (pillar 2), a stable macroeconomic environment (pillar 3), and a healthy workforce that has received at least a basic education (pillar 4).
- b) Yet as a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the efficiency-driven stage of development,

when they must begin to develop more efficient production processes and increase product quality because wages have risen and they cannot increase prices. At this point, competitiveness is increasingly driven by higher education and training (pillar 5), efficient goods markets (pillar 6), well-functioning labour markets (pillar 7), developed financial markets (pillar 8), the ability to harness the benefits of existing technologies (pillar 9), and a large domestic or foreign market (pillar 10).

The graphics below (from GCR 2011-2012) demonstrate how well the four countries do (the blue line) compared to the average for the stage of development that they belong to. If the blue line is outside the black, the indication is that the country fares better than the group average. It is seen that the closer the lines gets to the perimeter the more advanced the economy. Thus Mauritius displays superior advancement in general with much higher scores on 10 pillars, but is behind or at level as regards 'Innovation' and 'Market size', which appears a bit surprising but is explained by the characteristic of a small island state that needs to focus on just a few sectors (tourism, sugar, fishery); however, a lower score on 'Labour market efficiency' is surprising. Only Zimbabwe fares below the group average indicating limitations in competitiveness.

Figure 1 Competitiveness estimate - GCI spider webs for four TRD countries





Source: GCR, WEF, country pages

It is seen that one country is Efficiency driven, Mauritius, and the other three are Factor driven (see table below). The GCI is also used to rank the countries from 1 to 142. The table below indicates the present and earlier ranking of the four TRD countries. In terms of rank it is safe to say that Mauritius and Zimbabwe continue to

indicate improvements by moving gradually up the ladder, Zambia maintains its position and Uganda is dropping slightly backwards. The indication is that the countries are moving generally in the right direction by the establishment of a still improved framework for increased competitiveness and productivity of the economy¹².

Table 2: GCI Ranking and GDP per capita

Country	Group	Rank 2011-12 (142 countries)	Rank 2010-11 (139 countries)	2009-2010 (133 countries)	GDP 2010 (per capita, current USD)
Mauritius	Efficiency driven	54	55	57	7,598
Zambia	Factor driven	113	115	112	1,221
Uganda	Factor driven	121	118	108	501
Zimbabwe	Factor driven	132	136	132	594

The above brief analysis of GCI is for all economic sectors and indicates that Mauritius would be a source of 'good practices' that may serve as inspiration for the other countries in developing an improved competitiveness framework. Some factors are of more importance than others for the competitiveness of the fisheries sector value chain, in particular when it comes to the framework conditions for the SME segment. Some of these aspects are described below.

Macroeconomic environment

The macroeconomic policies and the associated status of legal and regulatory frameworks do vary considerably between the four TRD countries.

Zimbabwe is marked by a still post conflict economy as, with a high level of centralism; Government is involved in all aspects of the economy. Deprived of a broad revenue base, as tax collection is not thoroughly organised, e.g. the mining sector only contributes very

¹² A time series analysis of GCI ranking for the period 2005-2011 (using a constant 2005 ranking) indicate that the Sub-Saharan countries rate of increase is faster for this group than for China and OECD countries. However, it is noted that a few locomotives as South Africa and Mauritius are making the pull (ibid p. 39 – 41).

little, the Government coffer gets income from license fees in the various sectors including also fishing/aquaculture in terms of licenses rights to production and for exports.

Restrictions around land ownership, and availability of means of production do limit entrants into the business community and reduces dynamics. Access to financing does not follow market demand and supply rules, and is complicated and expensive. This reduces the interest of foreign and local investors to come forward.

There is a general lack of legal and regulatory framework in the fisheries sector, and the institutions related to the implementation of policy and law enforcement are weak and understaffed. For example the Fisheries Research Centre at Lake Kariba is supposed to carry out inspection services, but has very limited staff and means of transport to do so. Estimates of fish stock in the lake is done by historical trend analyses based on reported landings, there is no sample fishing going on. In fact much of the regulatory framework dates from well before the conflict era, but regulations are not enforced. New laws and regulations are in draft form or being drafted, but these are not approved in Parliament and there is no certain time frame for when parliamentary debates will conclude. At the moment fish products are traded under STR conditions, as mentioned above.

Though being the poorest in terms of GDP per capital **Uganda** is in a better situation, as the Government has liberalized many of the economic sectors. Demand and supply therefore determine prices in the market and directly encourage businesses to improve on efficiencies and productivity. Government has put in place a set of laws and regulations and is in the process of modernizing these. The macroeconomic framework has improved considerably over time; revenue is sourced from several places such as company profit taxation, customs duties, licenses etc. There are however still problems with implementation and enforcement.

The new regime in Zambia has taken on the burden of transforming a formally centralized economy into a more open market oriented one. The process is lengthy and the work has been commenced by the drafting of new legislation and regulatory framework. Though the parliamentary deliberations are fairly new, the government has pushed through reforms at the practical level making it possible

for the business life to take initiatives. As a fish eating country, and with a view to improve on self-sufficiency in supply and save foreign exchange, Government has liberalised the aquaculture sector and in fact encourages local entrepreneurs to take up aquaculture activities; however, provision of technical knowledge and guidance is still lacking behind, and access to funding is still complicated and expensive.

For **Mauritius** the situation is much better. Macroeconomic stability has been achieved and growth rates are high, the Government collects corporate and personal income taxes and customs duties, VAT is also applied and collected. The investment climate has been made attractive to foreign and local investors who are treated on equal terms and there is an off-shore facility deemed among the best designed and quite successful.

For the fisheries sector the large scale operators enjoying well-designed programmes and infrastructures. There are already approved plans for capture fisheries and aquaculture development under implementation. The main constraint for the large scale processing operations mostly based on tuna is the lack of a local fleet of vessels; today tuna for the canning industry that can enjoy preferential treatment is supplied essentially by the EU long distance water fleet. A recently initialled Fisheries Partnership Agreement (FPA) with the EU will help assure more stability in supply, but still at a too low level for the canning industry to remain profitable compared to Asian and Latin American canners.

For the SME segment in both artisanal fisheries and aquaculture operations the situation is not as positive. Regulations are still being implemented and the government supported technical programmes are limited in scope and funding. Conflicts between the growing tourism sector and the artisanal operators are present. A somewhat limiting factor is the ban of export of artisanal catch, based on the argument the local markets and the tourism catering industry need the products that would otherwise have to be imported, has caused this part of sector to export only small amounts to the region.

Institutions – Competent Authority and SPS

Development of the institutional set-up is significant for fisheries competitiveness. The Trade Assessment Survey identified food safety issues to be a key constraint for developing trade in fish products both internationally and regionally. It further indicated the requirements both at institutional level and for the private companies¹³ to produce and deliver safe SPS compliant products. Respecting the basic principles of WTO is a must:

- Most Favoured Nation principle – no discrimination of other nations
- National Treatment Principle - means treating foreign and local products equally.
- The need for the TRD countries to comply with the SPS requirements is of paramount importance. Compliance is a must for an exporter to supply EU markets and also regional markets. National laws and regulations have to reflect clearly the WTO principles and agreements. These must be applied equally to products from all trading partners when supplying to the regional and local markets. Thus the key institution that needs to be in place to allow regional trade in fish products is an approved Competent Authority (CA) and access to an accredited laboratory (public or private).

The four TRD countries all have approved CAs. There are however important differences in how these institutions are organised in the Government structures, the extent of the mandate they administer and the level of staffing both in qualification and quantity. In addition there is a marked difference in the progress of law making and up-dating of regulations. The main concern remains the level of implementation.

In Zimbabwe regulatory power and inspection activities are lodged with three units, two departments of the Ministry of Agriculture Mechanisation and Irrigation Development (MAMID) and the Nature Parks & Wildlife of the Ministry of Environment, and Natural Resource Management (MoENRM):

- *The Dept. of Livestock Production (DLP)* looks after the production side of all livestock (on hoof, poultry, and fish) incl. capture fisheries and aquaculture in rivers

and lakes. The department also acts as an extension service. The extension service regarding aquaculture and fisheries is fairly new and is staffed by one person at headquarters leaving a weak capacity. Though it is within the Ministry's mandate to gather market intelligence, no regional/international market intelligence is gathered. The main concern is that the unit only has appropriately trained staff at head-quarters, and there is virtually no staff in the field and absolutely none with a background in fisheries/aquaculture.

- *The second unit Department of Veterinary Services* is the key CA unit with mandate to issue health certificates and supervise DLP regarding inspection/inspectors. Whereas there is solid expertise in SPS related matters of the meat sector, the capacity of the CA to produce health certificates for fish products is limited. There are no staff trained in SPS issues for fish products at the border crossings. The capacity regarding issuance of import and export permits for SPS relevant products is in place. Only one producer is approved for EU exports, and hence also regional exports. The CA unit is only staffed by four people at headquarters and has one with expertise in fish products. Capacity for trade analysis and policy formulation, however, is available within the department.
- *The Nature Parks & Wildlife (NPWL)* department is responsible for issuance of aquaculture and fisheries permits, and collation of landing statistics by volume for both bream and Kapenta fisheries. Stock surveys are based on landing statistics and include a negligible element of biologic research fishery. However, the laboratory facility is under reconstruction.

A cooperation agreement between the Zimbabwe University and the Aquaculture Zimbabwe Trust (AZT), an NGO with an investment fund attached, aims to close part of the staff gap for local extension and inspection staff via newly designed training courses. Courses in aquaculture production are also delivered. Laboratory capacity is only sufficient for some of the analyses required to be carried out for the export and import products.

¹³ See TAS, pages 47-50

A new strategy for fisheries and aquaculture development exists in draft form and is assisted by the Fisheries and Aquaculture Working Group (FAWG) a quasi-governmental body. Due to the uncertainty around the political situation the law making process is at a halt and the valid framework dates back some 2 to 4 decades. Zimbabwe is essentially a meat eating nation; fish products only play a role in the daily diet in fish producing areas such as Lake Kariba. Commercial scale aquaculture is done by one big player with a few smaller operators as sub-suppliers. The enterprise is approved for exports and so exports under a normal trade regime. Other exports (of Kapenta and fished tilapia) are traded on an informal basis, but the ICBT programme has introduced the STR with some degree of success on the Zimbabwean borders with Malawi and Zambia, thereby formalising part of this trade.

Since the incumbent administration took office in 2011 Zambia has made progressive steps towards liberalisation of economic sectors. For fisheries and aquaculture liberalisation has meant a direct encouragement to increase local investment into tilapia aquaculture, with view to build national capacity in this area and reduce dependency on fish imports. The Department of Veterinary Services, the Ministry of Agriculture is the CA, and an adequate regulation governs the activities. The organisation has local outreach covering Zambia; however, most pertinent issues are handled at central level. It is an expressed concern that the regional offices are not staffed with food technologists or veterinarians that have expertise with food safety aspects in fish production or fish products. Even inspection on imports at the borders posts is done by non-fish expertise; in this context note that Zambia is the major regional fish importing country. The laboratory capacity to support the SPS related work is insufficient.

Zambia is in the process of up-dating laws and regulations with a view to adapt towards a more market oriented development economy. A new plan for aquaculture development is in the making but not yet in draft form.

Uganda, as well as the other Lake Victoria riparian countries, has a long tradition for the export of Nile Perch fillets to EU markets. The institutional set-up is adequate and a functioning CA is in place within the Ministry of Agriculture, Agro-Industry and Forestry (MAAIF). The CA is approved to issue

health certificates.

Whereas there is solid expertise in SPS related matters for the meat sector at the border points, there is a distinct lack of capacity for inspectors with fish product related training. In this context the public laboratory needs to be up-graded, meanwhile many of the Nile Perch exporting companies have established own basic laboratory facilities to meet export requirements for analyses.

The capacity regarding issuance of import and export certificates is simple and in operation. The extension service regarding aquaculture and fisheries is fairly new but is understaffed. It is within the Ministry's mandate to gather regional/international market intelligence, which is carried out; however, dissemination to industry thereof is limited. Capacity for trade analysis and policy formulation is also available within the ministry. Stock research is also carried out for main species.

The public sector support systems to create an enabling environment for fisheries related SMEs are present in terms of organisational set-up, and implementation of regulations is on-going. However, the lack of final promulgation of revised and modern Acts for fisheries/aquaculture and other areas of the economy levies a restraining toll. Likewise the responses to the latest WTO Trade Policy Review also consume capacity as does the on-going but almost completed EAC-EU EPA negotiation. However, the generally high level of coordination between government policy and implementation should help secure design of balanced interventions.

In Mauritius the CA is fully equipped as regards regulatory framework and fit into Government structures. The level of staff training is also found solid ranging from food scientists to (food and fisheries) technologists. However, the head of CA has raised concern over the trend that trained staff seize the opportunity to join private operators, where salary and other benefits are better, at times practically limiting the work of the CA. The CA has good understanding of its role as a partner for improvement in food safety own control systems (rather than a role as a policeman). The enterprises will have to learn to use the CA as an advisor as well. The public health laboratory is fully equipped for export product analyses.

The main gap is the limited capacity to inspect at the local landing and aquaculture sites. Locally

landed fish and shellfish are destined for the domestic market where SME operators are responsible for simple processing and trade. There are modernized landing sites with an adapted market structure in two locations. Industry indicated that some of these products could be marketed regionally. The latter however requires that the Government lifts the existing export ban on such products. The rationale of the ban is to protect the local market supply, if the ban is lifted the seafood supply would go down in volume and variety and imports could become necessary. It is noted that Mauritius is a main exporter of tuna products out of the region.

SME Support Institutions

In particular the SME segment needs considerable attention for it to become a dynamic take-off-for-growth platform in the economies, and to participate and augment regional trade in fish products. All four countries do have institutions/agencies that are mandated to cater for SME support in terms of training and provision of information. Such facilities are mostly on terms of general and financial management training/education and support. All four countries do fairly well regarding primary education, only Mauritius is ahead of average regarding higher education and training (Figure 1). Two countries have training facilities/activities directed towards the particular needs of the fishery sector.

In Zimbabwe the different agencies that are mandated to work with various aspects of SME support: ZIM-Trade, Small Enterprise Development Cooperation (SEDCO) and Zimbabwe National Chambers of Commerce (ZNCC). Though the agencies are mandated to cater also for SMEs in fisheries and trade in fish products, so far relevant activities has been limited. ZIM-trade, which is involved with both SME support and export promotion, has no programme with a particular focus on fish products. ZIM-trade also issues Certificates of Origin (CoC). There are no staffs trained in the particular aspects of fish production, processing, marketing and trade. Though ZIM-trade formally collects, collates and disseminates market intelligence for regionally marketed products, there is no capacity or experience to carry such activities relevant to fisheries/fish products.

SEDCO is mandated to assist the process of building investment in the private sector. The mandate also caters for the SME segment, but

most activities so far has benefitted the larger enterprises. Funding for these activities comes through the Pan African Bank. However there is a notable exception as it has extended investment and operating capital loans to some of the lake Kariba Kapenta cooperatives for capital goods such as rigs and engines etc. and to cover operating costs as fuel. SEDCO has provided training programmes on general, technical and financial management topics, but there is a lacunae regarding trade related areas and the gathering of market information. There is actually no agency carrying out regional market intelligence collation and dissemination for fish products.

ZNCC organises companies from most economic sectors. There is no chapter for fisheries and fish processing and no individual members from the sector.

Ministry of Industry and Commerce (MoIC) is pivotal in coordinating trade policy debate. The Ministry coordinates trade policy debate through the National Coordinating Committee that has membership from ministries, specialised agencies and also private sector representation through *Confederation of Zimbabwean Industry (CZI)*. There are sub-committees for different economic sectors, but there is none for fisheries. So the voice of fisheries is not heard at trade policy debate level.

According to Agribank, the key bank offering credit to SMEs, only very limited funds are available for credit to the target group. In addition, the conditions for getting credit are prohibitive for SMEs, interest rates vary from 21- 32% and collateral requirements are often 200% of the credit amount asked. Thus the Zimbabwean economy is cash based and uses the USD as currency, which to some extent overvalues the traded items. SMEs tend to fund their needs via earnings from own production results or via colloquial sources such as family or peer groups where conditions vary considerably and may not be stable or predictable. The only substantial integrated aquaculture/processing and marketing enterprise bases its funding needs on international sources. Hence development is slow in particular for sectors with limited domestic markets as fisheries.

Zambia has a well-established agency to cater for SMEs, *Zambian Development Authority (ZDA)*, who acts as an umbrella institution under which support to SMEs is grouped in departments or

units covering:

- training in general and financial management;
- export promotion;
- investment promotion; and,
- programmes for the support and empowerment of SME women

In addition ZDA coordinates the rolling out of a nationwide network of financially sustainable SME incubation facilities, funded by a group of development partners led by the Finnish Government¹⁴. It could be an option to dedicate an incubator to fisheries/aquaculture operators

There is no particular programme under ZDA for fisheries and aquaculture. Export promotion activities for that sector are not deemed relevant for the time being as Zambia is a major importer of fish products. Since the change of Government in 2011 more attention has been given to aquaculture development, and the GRZ is in the process of modernizing regulations and drafting action plans for the subsector. The Ministry of Commerce, Trade and Industry (MCTI) is responsible for the coordination of trade policy debate through a working group. There is membership from Zambia Chamber of Small Business Association, Zambia National Farmers Union, and the Zambia Federation of Women in Business Associations; however, none of these associations have activities related to fisheries/fish processing /trade. A newly created association in aquaculture is growing fast but is not a member of the working group yet.

It is a key problem that SME entrepreneurs have great difficulty in accessing credit finance (trust issues, collateral), and if successful the cost is high and devastating to competitiveness (18 - 45% interest, highest for local currency loans, and short repayment periods). The market of venture capital focuses on larger enterprises. However, a recent initiative, called Equity Capital Resources Plc. is registered under the Zambian Securities and Exchange Commission. It has strategic focus on SME enterprises, but requires a two year succession of healthy operation, and may well provide funding for companies when they graduate from the planned incubators.

Trade in fish products enjoys the STR and the ICBT programmes (as for Zimbabwe) which have been implemented at some border crossings. Zambia is a transit country for fish products destined for DRC including; horse mackerel and tilapia from China; the latter arrives via Namibia, and Tilapia from comes from Zimbabwe. Most of these products are traded informally. Zambia has no institution that offers training in international trade matters, but relies on the well reputed 'TRAPCA' university in Arusha, Tanzania, where all trade topics are offered at different levels¹⁵.

In the Ugandan economy fisheries plays an important role; it is both a foreign currency earner (second only to coffee) and a socio-economic factor. It provides many jobs in fishery, aquaculture, processing and trade and in other upstream and downstream sectors - there is an estimated 1.5 million jobs in fisheries (informed by Ministry of Tourism, Trade and Industry, MTTI). The legal framework is in the process of being modernized. A fisheries bill with a first draft dating from 2005 is now expected to become a new and modern Fisheries Act in 2013. An aquaculture plan was drafted in 2009 and is under implementation. Thus as regards legal framework and regulations Uganda is a case of reference.

Due to the importance of the Nile Perch export the processing industry has made its voice well heard in the trade policy debate voiced through Uganda Fish Processors and Exporters Association (UFPEA). Whereas the processors are large enterprises, the fish catch is done by a large group of small scale fishers. This division of labour ensures to some extent that the fish sizes caught are legal and thereby helps ensure sustainability in the fishery. Undersized fish will not be purchased by UFPEA members, who have their own self-policing unit working closely with the CA; with undersized fish the fisher risks losing his business. It is not proven that sustainability has been achieved, but the self-policing system operated by UFPEA and the public inspection system has helped bring down illegal fisheries. The main issue today is the flocking of new small scale fishers who may increase the legal catch to a level beyond sustainability, and who may also sell to SME traders for informal trading. The Lake

¹⁴Planning the establishment of a National Business Incubator in Zambia, Helsinki, 2009

¹⁵ See: 'Mid-Term Review (MTR) of the Trade Policy Training Centre in Africa', Bent Larsen, SIDA, Stockholm, 2009:27

Victoria Fisheries Organisation (LVFO) with its national affiliates also is a factor in the monitoring of fisheries development.

The Ministry of Trade Transport and Industry (MTTI) coordinates the trade policy debate through the National Coordinating Committee; it has membership from ministries, URA, specialised agencies and also private sector representation. There are sub-committees with membership from different economic sectors including for fisheries/aquaculture UFPEA and WAFICOS (the umbrella organisation of the catfish aquaculture cooperative). There are other aquaculture associations operating, but despite attempts, the TRD team was not able to make contact. The Ministry is also responsible for TID and other fisheries related programmes in coordination with CD, URA, and executed coordinated with COMESA's REFORM programme (now under CBT, RISP II).

SME operators in fisheries and aquaculture do not have solid institutional support in terms of public training facilities. Such training is conducted essentially by the associations in the area. For Mukene fisheries the Beach Management Units have developed guidelines on good practices for fishing and carry out training activities for fishers - existing as new ones. Training in drying techniques for Mukene is not yet developed. In 2009 new methods of post-harvest treatment of Mukene was carried out with a clear indication that better practices can be established on a commercially viable basis. It is expected that the new techniques may help reduce the post-harvest losses as also help progress in the fish value chain.

UIRI is the only training facility / incubator that fish processors can make use of. Though a very much needed institution, the physical facilities are designed for training and products development in meat processing. Presently the scarce room is utilized simultaneously for meat, poultry and fish processing, in itself a clear malpractice. Key SPS issues as cross contamination is unavoidable as logical and straight flows moving intermediary product from 'dirty' towards 'clean' sections does not /cannot be established. Such important issues with SPS regulations should be solved immediately for well pointed training activities. Sinks in the processing rooms would also be an asset (a must, in fact).

The Uganda Export Promotion Board (UEPB) is

in generally oriented towards the needs of both large scale producers and SMEs and is presently working out a new National Export Strategy expected to be finalised in 2012. The strategy includes an upgrade for the role of fish products and considers that this value chain in the near future may overtake coffee. The strategy otherwise includes measures aiming to reduce informal trade assisted by ITC and the CBT REFORM programme executed with COMESA.

The CBT REFORM Programme has been explained above. In Uganda some success has been achieved in organizing and training the Women ICBT into associations at the four border points of Busia, Bibia, Katuna and Mutukula:

- 189 Women ICBTs trained at the 4 Borders
- 4 women associations are registered at the 4 borders Women ICBT Associations Formed and legalized
- ICBT supportive publications produced (a training manual and brochures as well as posters)
- Formalization messages disseminated under project's Communication Strategy at the borders
- Private sector Linkages forged
- Border agencies' buy-in for the reforms obtained
- Women Informal Cross Border Trade Hub office sited at Mutukula

It is an interesting development as the UEPB estimates the informal/formal trade split to be 50/50. The main obstacle is the cost of the STR for the trader, though considerable less than for formal trade, the amounts asked are still considerable. It is foreseeable that some drop-out will take place unless other benefits can be transferred to the SME traders.

The further development of formal trade would be in terms of the implementation of a one stop border shop (which to some extent is already on its way). Such endeavour is supported by COMESA and also EAC, the latter being a step ahead at least regarding the regulatory framework. However, it is generally agreed that the COMESA template for one stop shops should be the chosen one to apply in the future. According to Uganda Revenue Authority the national interest always has to be catered for before the larger scale FTA and integration frameworks can be implemented. In fact

implementation of any trade facilitation aspects is a slow mover, and the subsequent step the single window is not a priority right now.

Access to credit is a problem in Uganda for the same reasons indicated for Zimbabwe and Zambia.

In general the institutional set-up is more advanced in **Mauritius**. The set-up rests on long term planning that is based on a common IOC fisheries and aquaculture strategy¹⁶. Though designed as a region wide framework for five member countries, it has also assisted Mauritius in adapting policy and establishing a coherent institutional set-up. The strategy is comprehensive and covers aspects from sustainability issues, SPS, marketing and trade.

At policy level Mauritius has a long tradition for planning ahead and for implementing laws and regulations fairly quickly, which offers the industry a solid and stable platform for their activities. Mauritius has in continuation of its long tradition prepared a Master Plan for the sector consonant with the IOC strategy. The Master Plan¹⁷ does not confine itself to the narrow definition of 'fisheries' but addresses the issues of the broader seafood sector, including the entire value chain from production (both capture fisheries and aquaculture) to distribution and processing through to marketing issues. It contains in a prioritised way action investment projects. Most recently Mauritius initialled a Fisheries Partnership Agreement (FPA) with the EU granting its Long Distance Water Fleet access to fish in Mauritian waters as well as to ensure that originating tuna are landed in Mauritius. The FPA ensures the payment of compensation for the catch to be used for fisheries sector policy development and general economic development.

The fisheries sector is characterised by a small group of medium to large enterprises in tuna processing, and a large group of small operators in artisanal fisheries and aquaculture and mariculture.

Thus the government and quasi-government institutions including the Mauritius Chambers

of Commerce and Industry, and Enterprise Mauritius are oriented towards the segment of larger enterprises in fisheries. There is a host of programmes to support this segment of the industry in terms of export and investment promotion, participation in trade fairs etc. These are well designed and highly appreciated by the industry.

The introduction of the Fisheries Hub brings together solid knowledge on markets, training institutions for fisheries and fish processing, provision of export promotion, functioning infrastructure, repair and maintenance facilities and a product display/auction system. The introduction of a true one stop approach to the customs clearance and checking of other concerned authorities ensures efficient and fair procedures. However, this is mostly to the benefit for tuna products imported from global sources and for extra-region exports of tuna.

Support to artisanal fishers is provided, but in terms of transfer payments not business development. Artisanal fishers, who mainly fish in the lagoon areas of Mauritius and Rodrigues, are among the poorest sector of the Mauritian economy with average earnings from fishing being around MUR 2,760 per month¹⁸. This income is supplemented by Government payments in the form of a Bad Weather Allowance, which is designed to compensate fishers when they are unable to fish as well as a number of other benefits (assistance with children's education, medical care etc.) that are provided through the Fishermen's Welfare Fund. These supplementary allowances add a further MUR 1447 per month on average to a fisher's gross income for a total of approximately MUR 4,200 (USD 140) per month.

This average per capita income of inshore, artisanal fishermen is therefore significantly less than the average for Mauritius as a whole of USD 7,804 per annum in 2010¹⁹ or USD 650 per month.

SMEDA is a parastatal agency dedicated to SME development; it is associated with the Ministry of Business Enterprises & Cooperatives (Business Enterprise Division). The formal status allows

¹⁶ 'Stratégie régionale des pêches et de l'aquaculture de la COI'. COI, Maurice, 2009.

¹⁷ 'Fisheries master plan for Mauritius, Rodrigues and the Outer Islands', Mauritius, 2011

¹⁸ IFAD, 2006

¹⁹ Source, International Monetary Fund, May 2011

a short and quick decision making process, and many initiatives have been executed for the agriculture, craftsmanship and tourism oriented sectors e.g. production and display of e.g. handicrafts. There have been no activities for the fisheries sector, but a sincere interest was expressed in getting more involved. One area where the facilities of SMEDA would be immediately useful to the SME fishers, aquaculture and marketing operators would be its Information and Communication Technology (ICT) training and media centre. Here fisheries SMEs would be to get training in systematic IT based market search activities and the use of IT in accounting. The media centre is up to date and additionally it offers support in finding e.g. market intelligence and SPS relevant legislation.

Regarding training facilities Mauritius is in the lead on higher education and vocational training, see Figure 1. Training is available at all levels of maritime education including fisheries relevant training at a skipper's school and training in food technology and science to cater for food safety. Fish inspectors are trained to the level of international standards with an approved CA responsible for control and inspection services. Export of tuna products to EU markets is a well-established activity bringing foreign currency and jobs. There is also an elaborate training programme for all aspects of developing an efficient logistics supply chain including courses in import and export procedures, trade documentation, customs clearance, forwarding, stewardship etc²⁰. The latter kind of training is highly relevant for the establishment of an efficient trade enabling environment and Mauritius provides also in this area a 'good practice' to serve as inspiration for other countries.

Other competitiveness issues

Regional raw material and processed products (e.g. based on Tilapia) face competition from extra-regional imported products that can replace the local product. The one important case is import of frozen Tilapia from Asian countries into e.g. Zambia. The imported Tilapia varies only to a small extent from the local product in that it has leaner flesh. It comes in slightly different sizes compared to the local product. The local consumer prefers a

fresh-on-ice product, but is willing to sacrifice taste if the price of the alternative is substantially lower. This willingness is apparently decreasing due to availability of the higher rated local product. The competing frozen product is sold at prices of USD 1.00 to 1.30 per kg in Zambia. The fresh-on-ice local product from Zimbabwe fetches USD 2.5 to 4.5 per kg. Thus there is a marked price differential. Since fish feed is the main cost component in farmed Tilapia the cost of production will depend largely on the feed cost. Part of the input to feed production is internationally traded commodities, such as fish meal and oils, particularly for starter feeds, and will cost approximately the same in Africa and Asia. Other ingredients such soy meal, brans etc. are produced locally, where Africa will be less costly than Asia. Feed conversion ratios are important as it requires at best just 1.9 kg of feed in Africa to produce a kg of fish, whereas in Asia the feed conversion is probably only slightly less. Manpower costs depends on two aspects the efficiency of the production system and the unit cost of labour. Unit cost of labour is less in Africa but efficiencies are likely to be higher in Asia, due to more intensive Asian production methods. Finally transport from Asia to Africa of final product adds an additional cost element to the Asian product. In sum the cost of production and getting the product to the consumer should be lower for the African product; a recent study indicates a cost price on USD 2.25 for African producers²¹. It is therefore a bit of a mystery how Asian Tilapia can be sold at a retail market in Zambia at USD 1 to 1.3 per kg of frozen round Tilapia. So part of the cost of production in Asia must be paid by covered or supported by other sources than the producer/producer, such as government subsidies for instance.

Presently Asian tilapia is competitive, due to the strange price relationships, in local and regional markets. However, with still improved local production methods and better formulation of feeds, the conversion ratio may improve and the cost of local production of feed ingredients certainly will remain competitive. ESA countries also have availability of land and cheaper labour. Overtime the local tilapia is expected to become pricewise competitive.

²⁰ See the full pallet of courses offered at: 'Freight Academy', Port Louis, Mauritius. Website: <http://www.freightacademy.com>

²¹ See: 'ADB Technical Review Of Financial Projections -Zimbabwe: Lake Harvest Aquaculture Project'. Zimbabwe, Nov 2011. The producers are: National Milling and Tiger Foods of the Astral group

For the other products, which are all local fresh water based products as Nile Perch, Dagaa, and Catfish, there is really no substitute product sold in Africa. Hence, competitiveness for these products remains high. Imported products other than tilapia include marine species, such as Jack Mackerel and Hake, which do not act as substitutes for fresh water fish. Promotion of intra-regional trade in food products, including fish based ones, play a key role in food security and economic activity.

3.3. COMESA

The mandate of COMESA has become broader and deeper over time with the growing wish for more trade liberalisation and economic integration. From an institution in 1984 setting up a Preferential Trade Area (PTA) for 12 countries, via the establishment in year 2000 of the FTA that 14 of the 19 members countries have ratified²², to the ambition of creating a Customs Union (CU) in the period 2008-2012 (not yet in place). COMESA also cooperates actively in the context of the Tripartite Negotiation Group (TNG) that aims to establish an FTA for 27 countries covering 527 million people, where promotion of intra-regional trade in food products, including fish based ones, play a key role in food security and economic activity.

Today COMESA plays an active role both in improving trade facilitation²³, promoting its own template for trade liberalisation and removal of Non-Tariff Barriers (NTB) to trade. COMESA is therefore in close dialogue with other RECs: EAC, IOC, SADC and IGAD. These have existed for a varying number of years and houses from 4 to 19 full members.

Their purposes differ, but key objectives include first and foremost trade and development coordination and economic cooperation. For the sake of completion and comparison a fifth regional organisation, SADC, is included²⁴. It is seen that some countries are member of up to three RECs may, however, prolong the discussions as more

and some only of one. There is no problem for a country to be member of more than one REC; it sides have to be heard and considered and agreed commitments respected that at times can be conflicting.

COMESA recently launched its Common External Trade Policy (CEPT)²⁵, where the relationship with other trading blocks and neighbouring RECs are outlined. COMESA is party to the on-going EPA negotiations with the EU, but at this time it is only for the Interim EPA, which is limited to consider only trade in commodities. Trade in services and investment issues plus broader scoped economic partnership comes later. It appears from the document and from TRD team's discussions with key COMESA officials that the COMESA template is likely to be chosen by the other RECs as well. The indication is that trade liberalisation (abolition of intra REC tariffs and concerted implementation of a common external tariff structure) and removal of NTBs will in good time follow the same template. At the moment the RECs have designed each their own template at various levels of implementation depending on the willingness and capacity of the members. Sometimes even the choice of software systems for customs procedures differ making procedures more complicated, but new software interfaces can resolve this issue.

It is COMESA's ambition to introduce trade facilitation tools and methods gradually and in a prioritised order. In the case of fish products the first step is harmonisation of standards and SPS procedures, which is almost fully agreed in principle but slow in implementation. Secondly the broader scoped one stop border crossing shops should be implemented²⁶. A few pilot border crossings have been designed for this purpose with some success as time spent at border crossings are reduced considerably. However, the physical infrastructures are expensive to implement and the management procedures are not finally defined. The use of the Public Private Partnership (PPP) concept in operating the border

²²Five COMESA member countries: DR Congo, Eritrea, Ethiopia, Swaziland, and Uganda have not ratified the FTA agreement and protocol. South Sudan is expected to become member no 20 in the very near future, it is also invited to join EAC and TNG.

²³See TAS. SmartFish October 2011, but these aspects are catered for by the much larger TMSA programme

²⁴See TAS

²⁵'Common External Trade Policy of COMESA: Issues Related to Relations with 3rd Parties', COMESA. LUSAKA, 30 march 2012, Funded by EU

²⁶A one stop border crossing shop is where the customs authorities from the 2 countries work in the same building, so that the transporter of goods only has to stop once for the customs clearance.

crossings has also been tried, but the operator just doubled the handling charge, which was not found agreeable to the logistics companies.

In the more distant future the concept of a single window may be implemented, the single window means that the exporter only has to deliver the paperwork for checking in one place including transporter documents, bonds, health certificate, CoO, customs declaration forms, customs invoices, export permits etc. The single window will then distribute the documents to the relevant authorities for quick inspections and clearance. Single windows can reduce the time spent at the border considerably, in particular in the single window is electronically based. The latter allows the exporter to submit all paperwork even before arriving the border, thus clearance procedures can be swift (down to 30 minutes from presently up to 3 days). The advantages are obvious in terms of time and cost saved at the border, and it can also play an important role in reducing malpractices such as bribery as the exporter and authorities may not even meet face to face - only Mauritius has implemented a true single window.

COMESA is deeply engaged in the process of reducing fraud and bribery. One important way to formalise small scale trade in fish products, see the REFORM ICBT programme (now under Programme for building African Capacity for Trade, PACT II, funded by EU executed with International Trade Centre). The ICBT has had some success, but there is still room for improvement, for example the limit for duty free values of a batch can be increased and the requirements for documentation can still be lessened. Further support to the ICBT is therefore necessary.

COMESA does offer support to the private sector through the 'COMESA Business Council' (CBC) established in 2003, which is a private sector driven organisation. It operates via a group of national focal points that are placed within competitiveness enhancing oriented structures as Chamber of Commerce (COC). The advice is offered through COCs, professional associations and cooperatives structures where COCs the main vehicle remain.

It is part of CBC's vision to create an economically independent region and a stronger, more influential private sector. Related directly to trade is working group on removal of NTBs. Services are among other geared towards the enhancement of export competitiveness in the region, developing Trade Capacity in the SME sector and improving the regional private sector. Competitiveness will be enhanced through the provision of demand driven, value added fee-based services. Improved condition for regional trade is a key area and CBC aims to contribute towards an increase in intra-regional trade of 50%. In this context the concept of promoting models for development for example the establishment of industrial clusters or agro-industrial centres is indeed interesting for the TRD.

In the COMESA context fisheries production and exports of derived products is a strategically important area to develop as it contributes to food security, and provides foreign currency and jobs. In 2009 the total fish product exports from COMESA was at USD 727 million and imports of 531 million, to the latter should be added the imports of fish feed and ingredients thereto. However with terms of trade around 1.3 the balance is still positive. Regional trade in fish products has been negligible historically²⁷, but in recent years, trade in tilapia, catfish, Dagaa and horse mackerel has grown steadily.

COMESA is an important contributor towards development on pan African fisheries framework such as the African Union/NEPAD lead interventions²⁸. Regarding regional fisheries and trade COMESA devised a draft strategy in July 2011²⁹. It is comprehensive in scope and is well linked in with the abovementioned broader framework; however, as the strategy covers the needs of 19 countries most of which are continental, the needs of some landlocked and some small island countries it is not always detailed in the specification of desired outcomes. Although coherent in design also the associated investment priority areas would need some detailing for adaptation and implementation at national level. There are no funds committed as of yet to the implementation of the strategy. It is pivotal to the success of regional trade

²⁷See TAS, 2011

²⁸See 'Action Plan for the Development of African Fisheries and Aquaculture', AU/NEPAD, 2010. This plan is part of the Comprehensive Africa Agriculture Programme.

²⁹Strategy for the Sustainable Development of Fisheries and Aquaculture', COMESA, 2011

development that the priority area 'Trade and Market Access' identifies trade facilitation and infrastructure development as key in the investment

planning. Inclusion of the necessity to develop harmonised regional standards for fish products is also an important intervention area - however, the TRD team would like to add that these have to be WTO compliant and follow the SPS specifications. The area of implementing SPS inspection at the border is not very articulated in the strategy. As mentioned earlier it was found in the TRD countries that there is not enough staff trained in how to inspect fish products according to the SPS requirements.

4. PRIVATE SECTOR AND TRADE READINESS

One main objective of the TRD study has been to identify the actual status regarding the use of a systematic approach to engage in regional trade for the private sector operators. The method chosen was based on an adapted standard TR questionnaire applied in USA and Europe. The TRQ was adapted to the ESA conditions, in particular for SMEs, with a view to enhance regional trade participation for this segment that today trade only domestically.

The four TRD countries were selected among other as trade direction and practices varies substantially. From a non-fish eating country with exports to an importing country with only limited production, and to countries where export out of the region is the key activity presently. Regarding the level of private sector organisation the variation is substantial. In combination the TRD should reflect the variations and hence indicate lacunae at policy/institutional level and even more so the different approaches to regional trade taken by the large scale and SME operators.

It is a key point to assess how deep and wide the companies are engaged in the value chain for fish products, in terms of their business activities carried out. There can be many links in this chain but to keep the assessment relevant to TR the following categories of business activities have been applied:

- Logistics (includes storage and retail outlets for final products on site and in other regional countries, the ownership or leasing arrangements for transport refrigerated or not, distribution by bicycle and moped for SMEs)
- Professional associations and cooperatives
- Investment facilities and credit institutions form SME operators

For the four TRD countries total of 42 companies and private organisations were interviewed divided on four main groups: Large companies (15), SMEs (13), profession associations and cooperatives (8) and Investment and credit facilities (6)³⁰. Table 4 below indicates the split along company economic size, where SME status equals a company with less than 30 employees. Since the wanted output is an assessment of the TR status the unit of analysis is the number of business activities that a given company participates in. Thus the table summarises results by the categories listed above, and thereby also allows a quick insight into the level of vertical integration of a given size company. These results cannot be used for generalised statements at national industry level as the number of cases is too small to allow quantitative analyses based on rules for statistical significance. The results are valid only for the companies and organisations interviewed and is used essentially for qualitative assessment.

- Raw material producers (fishers and aquaculture operators)
- Key input suppliers as feed and feed ingredients for aquaculture
- Processing enterprises with different products (fresh on ice, filleting, canning, drying, salting, advanced products)
- Marketing/trading activities

³⁰This categorisation is intended to be used in a subsequent larger enquiry to be carried out by disseminating the TRQ via email for a more detailed analysis for all SmartFish countries.

Table 4: Companies interviewed by economic size and business activity

Country/ Business activity	Mauritius	Uganda	Zambia	Zimbabwe	Total
<i>Large company</i>					47
Fisheries					0
Aquaculture		1		1	2
Feed	1	1	1	1	4
Fish processing	3	5	2	1	11
Trade regional	3	6	3	1	13
Logistics	4	6	4	1	15
Associations	1	1			2
<i>SME</i>					43
Fisheries	1		1	2	4
Aquaculture	1	1	3	2	7
Feed		1			
Fish processing	3	2	3	2	10
Trade regional	1	2	1	1	5
Logistics	3	1	5	2	11
Associations	1	2	2	1	6
<i>Investment/credit</i>	2	1	1	2	6
Grand total	24	30	26	17	96

Source: TRD team interviews

The 42 companies and organisations display a total engagement into 96 business activities. If associations and investment credit facilities are disregarded the productive sector companies interviewed engage on average in almost 3 business activities, large companies average engagement in more than 3 business activities, the SMEs average less than 3 activities. It can be said for SMEs that activities related to marketing/trade and logistics are, with a few exceptions, at quite rudimentary levels. They involve selling at the local market using bicycles and mopeds as means of transport with no particular gathering of market intelligence or marketing effort.

4.1. Large players

Interview results indicate that larger companies are more vertically integrated. It reflects the importance of controlling input supplies in economies that are import dependent and without supply chains. In the case of fisheries this is particularly true for fish feed and industrial level technology supplies. For fish feed there exist only one producer of the

complicated starter feeds for fry and fingerlings, pre-mixes for sale to milling and mixing operations to produce grow-out feed to producers of commercial fish feed. Only one aquaculture producer mixes its own grow-out feed, it is considered a key tool to control and optimise feed conversion ratios under the present local water and climatic conditions.

As an example one large company displays full vertical integration in that it covers all the listed activities of the value chain: from aquaculture (brood stock, hatchery, fingerlings and commercial fish grow out) and feed production, processing, storage, logistics system including a fleet of trucks, retail outlets in several countries and a dedicated marketing department. It even produces floating cages based on own design and imported input materials. Feed mixes are formulated based on own research and also uses some local ingredients from agriculture, other key ingredients are imported.

The company is engaged with regional trade based on own logistics. A high level of vertical integration indicates the importance assigned by management to regional marketing/trade aspects. This company has accepted TR as an important business and market development concept and also achieved it in practice.

Similar business concepts were found in the Nile Perch industry. As exporters the involved companies are aware of SPS requirements and do have CA approved HACCP plans including prerequisite programmes. In some case there is still scope for improvement. The rationale for a high level of integration is the need to assure for example input supplies based on own manufacturing.

These large enterprises tend to be owned partially if not fully of foreign capital and are often vertically integrated. The advantage is that technical and managerial know-how and marketing/export experience is brought into operation, and also less costly foreign financing is available and is managed by skilled officers. In two countries almost the entire industry was established this way and the transfer-of-technology is only now beginning to show as such elements of business operations are considered of strategic importance. Foreign owned companies have traditionally focused on export markets in particular EU-markets. The downside of foreign ownership fully or partially is that financial resources are exported as well, and if owners based abroad decide to close a company local jobs and knowledge will become idle.

The Nile Perch and Tuna canning industries are, though large, not fully integrated corporate structures. In both cases the fisheries is done by third party owned fleets of vessels. In one case fishery is done by independent small scale fishers in the other by foreign long distance fleets of commercial purse seiners and long liners.

In three countries the large producers have established professional associations that have direct contacts tin government and participate in trade policy debate. When exposed to the TRQ the main trade related concerns expressed by the large players' include:

- Limited knowledge of what the local/regional markets demand of fish products,

- How to get the product to the consumer in regional markets in good time and at reasonable cost.

The obstacles include:

- Limited access to information on consumer preferences and tastes,
- Limited understanding of market dynamics where price conditions today allows a larger group of potential consumers as buyers,
- The consumer's ability and willingness to pay for quality.

Existing professional associations focus the market intelligence gathering efforts on the extra-regional export markets, and only collect sporadic regional market intelligence. The associations more the lass assume that that kind of business services is part of the mandate of public export promotion agencies. If at all the latter do not carry the services on a regular or structured basis and have no clear lines of operation for collecting and collating such material, whereas dissemination of the findings would be easy. Another obstacle indicated is the high trade cost involved and limitations in trade facilitation.

Additionally, the TRD team found that the large operators do not have problems in selling/exporting their products, in fact the constraint is on the raw material supply side. It does explain the reluctance to engage in new development by restructuring part of the production capacity to meet preferences in the regional markets. Only in a few cases operators on the Nile Perch industry have engaged in the production of new products for the regional market such as round fresh on ice Tilapia, and one Tilapia producer has decided to refocus the market strategy clearly towards regional markets where demand outrange production capacity by a factor of one to ten and prices are at getting toeads attractive levels.

4.2. SME Operators

The SME segment of operators interviewed is owned and managed almost exclusively by local groups/families. The availability of funding therefore has limitations and local access to credit is prohibitive due to high interest rates, approval procedures and collateral requirements. Ownership often goes hand in hand with active

involvement in daily management, where the company manager is also responsible for financial and marketing management. This mix of roles keeps the company in a certain fixed position from where graduation to a higher level of development is difficult, not least due to the fact that the owner/manager would have to decentralise decision making power over part of the company.

Vertical integration is limited to fewer business activities, normally involving production, local sales and simple logistics (bicycles and mopeds). A notable exception is Karpenta fisheries where a company control both the fishing rigs (the main investment) and in some cases also the processing (drying and packaging in sacks) facility. Marketing is by hearsay, where the buyer brings his own means of transport (in most cases pick-up trucks) to the company gate and is responsible for the product from then on. A considerable amount of product is actually resold at domestic town and city markets, and some even reach markets in neighbouring countries - the product is considered of good quality as it is dried on coverable and guarded racks. The situation for Mukene fishery is not as promising mostly because the post-harvest and processing part is carried out sometimes directly on sand with heavy losses and poor quality as result. The latter is a bit sad as the TRD team learned that markets are growing in neighbouring countries as Burundi, DRC, Rwanda, and South Sudan.

The perishable products from fishery and aquaculture only undergo little and simple processing (drying, salting, smoking/curing and fresh-on-ice) limiting the shelf life of the end product. It is a common constraint in relation to regional trade, particularly found for the SME operators. Transporting the product using bicycles and mopeds and in some cases pick-up trucks is a further constraint. Products can only reach markets within a certain perimeter depending on road and weather conditions. It is a must to find products of a longer durability and better means of transport.

A positive new development was identified for catfish aquaculture. Traditionally these products are sold whole fresh-on-ice, but the WAFICOS cooperative, registered with MAAIF, carries out training in catfish farming and processing for its members. Through WAFICOS a woman fish farmer got in contact with UIRI and developed a new product, a frozen catfish mince sausage. This product has become a taste wise and commercial

success. She is now looking for new processing facilities and co-investors because UIRI only has limited capacity as an incubator.

There is ample scope for smaller companies to learn from larger integrated systems in the approach to management. A good case is in aquaculture where the control of the grow-out process is well documented for larger companies. Control involves a well-designed lay-out of pond schemes in the optimal locations, cage design, and adaptation of feed to the local conditions, feed application, water flows, monitoring of the stock for disease, and good harvesting and post-harvest handling methods. Traditionally these aspects are not well understood by SME operators. Many SME operators have invested into aquaculture production because false rumours tell that profits are high and quick. Hence the tumbling of new unprepared SME operators, who enter a specialised production, into aquaculture production - failures have been abundant. The presence of a 'star' company that can act as centre of excellence and guide the investors can save many resources for the investor as for the country.

Marketing planning and strategy is another important aspect of the TRQ where the 'star' company can assist SMEs. It is not surmountable tasks to up-grade aquaculture grow-out or fishing/post-harvest handling techniques to meet basic food safety requirements and thereby produce regionally marketable products. The catfish sausage is one example, another is the experimental processing of Mukene in 2010 that led to the identification of two methods for reduction of post-harvest losses and new products (fish silage for feed production and improved industrial style drying techniques). With such improved and marketable products the marketing strategy can be expanded to capture regional markets.

The limiting factors related to TR for SMEs include:

- Lack of formal managerial and production technology skills,
- Only superficial knowledge about quality assurance systems and SPS requirements,
- Limited knowledge on how to source financing,
- Expensive credit
- Very limited knowledge on trade regulations and border crossing procedures.

These factors were found at play in several cases by the TRD team. In fact when going through the draft TRQ most SME operators indicated very limited understanding of the concept and the underlying requirements to SPS (food safety issues), trade regulations and border procedures.

With only one exception there is no targeted support from government agencies designed to meet SME needs of the fish product value chain. All TRD countries do have training institutions that cater for general SME managerial, financial and marketing training. But such courses are based in capitals and the important marketing aspect has no focus on fishery product issues. SME development and trade promotion agencies display similar patterns, there is only in one country designed a specific programmes for fishery products (Mauritius). In one case a recently initiated NGO now carries out training for aquaculture operators. Otherwise training in SME fishery and aquaculture has been the domain of development partner programmes, which is particularly valid for the necessary knowledge on SPS requirements. The SMEs suffer from the same lack of access to market intelligence as do the large companies.

In all countries the SMEs have established some kind of professional associations for fishers, aquaculturalists and/or traders. In three out of six cases the associations are new but growing in membership and operate on limited resources and human capacity. In one case the association was established to assist the handling of registration of fishing activities by members and to assist the registration of landings. It acts in other words only in the local context not nationally. Generally the associations were not aware of the necessity to contact government and become a voice in trade policy debate. In just one case the association is well established and have a voice in the trade policy debate.

The ICBTA programme executed by COMESA assists does a commendable job in the process of establishing SME border traders' associations, but there is no specific training of traders in fish products issues. The latter group however has good use of the training in general and simplified (STR based) border procedures. The TRD team informed association representatives about the potential roles th

5. KEY ISSUES AND POINTERS (RECOMMENDATIONS)

Through discussions with TRD country stakeholders, findings of major recent studies and programmes, and own observations mentioned in the report text, a number of key issues were identified. These are presented below together with initiatives that the national authorities and private sector operators and their associations can use, when further developing the trade enabling environment. Note that the term 'pointers' rather than 'recommendations' is used, as issues found in four TRD countries have to be considered. Conditions do vary substantially between the countries; hence, more detailed pointers/recommendations are only applicable at national level. The main recommendation is therefore dedicated to the private sector operators in terms of the Trade Readiness self-assessment tool: the Trade Readiness Questionnaire (TRQ), which has been adapted to the SME level of business in the fish product value chain. TRQ is presented in Annex 1 so that it can be lifted off the TRD for actual use (it is not repeated in the list below):

Issue 1: Informal trade and border procedures

There is only very limited intra-regional trade registered due to the practice of informal trade, thus much more intra-regional trade than what is officially recorded exists. Informal trade means that the border crossing of fish products take place in small non-dutiable quantities and cannot be recorded in statistics under the existing reporting systems. Informal trade practices provide a somewhat diffuse and even confusing picture to the national authorities when trying to analyse statistics for planning and policy development purposes.

Pointer 1: Informal trade lead to insufficient information and statistics on intra-regional fish trade in volume and value and by different product types. The value-chain and actual extent of the informal trade should be resolved by committing the national authorities to practise and promote:

- *Linking up with the COMESA ICBTA programme to collect systematic data and aim to formalise the trade and promote the establishment of ICBTAs*
- *ractise firm statistical collection and reporting practices by training in collection methods and analysis of statistical data would be needed for policy and planning purposes;*
- *A regional fish trade information and database system should be established at the level of COMESA members but with a view to be expanded to the Tripartite region, the data collection points should be clearly identified and mandated and with transfer of operating knowledge via information, communication and outreach programs;*

Issue 2: In adequate capacity for SPS control in border areas

The four TRD countries all have an approved CA. However, insufficient institutional capacity as human resources with the right training, and limited funding is an important issue. This was identified as a key problem by both large scale and SMEs; in particular the outreach to SME operators is missing or weak. The result is that not all countries implement the SPS sub-agreement which also applies to intra-regional and domestic trade. It follows that fish control and inspection is inadequate and the fish products for human consumption may not be safe to eat. In fact the local trader and operator also violate the SPS related commitments as there clearly is no documentation for traceability, which in on element of the Pre Requisite Programmes (PRP).

Pointer 2: It is important that guidelines, protocols, PRP manuals, HACCP plans and their means of verification are standardised, harmonised and designated/gazetted. This may lead towards compliance with the SPS agreement for fish

products that are traded mostly intra-regionally (smoked, sundried, salted products, chilled and even some frozen products):

- Standards equal to the SPS and Codex Alimentarius or otherwise relevant ISO standards for capture fisheries and aquaculture should be promoted to operators.
- The associations should be informed about these requirements including traceability in an easy to understand form and be able to disseminate these to the members;
- Build capacity with the CA in particular in the border areas, so that inspection and control is done by adequately trained staff.

Issue 3: High cost of trade due to poor trade facilitation

Trade facilitation is an issue as regards implementation of the commitments under existing FTAs signed by REC members, in particular for COMESA countries where a generally template for a Customs Union exist. As a result, transaction costs for fish products are very high in continental Africa, partially due to the poor quality of physical infrastructure, but also as a result of border crossing procedures and issues. The latter may involve up to four days of waiting for a truck to pass. However, part of this issue is addressed by the large scale programmes under the Tripartite region's and COMESA's leadership.

Pointer 3: Political will and good governance, exercised by the participating members of the Tripartite negotiation process for a region-wide FTA, is a key element to its success. It is therefore important that the fishery sector is not marginalized in the deliberations at national, regional or international level and that Trade Readiness is enhanced. To hear the voice of particularly SME in fisheries as regards Trade Readiness the following should be done:

- Train association members in STR requirements and procedures.
- Establish or equip existing professional associations with mandates to disseminate and promote participation in fish trade policy debate as regards trade readiness;
- Mobilization of SME operator associations in the fish products value chain to form discussion fora locally as a 'cluster' and help define the key actions required to enhance trade readiness;

- Capacity building of regional traders and processors associations/organisations in areas such as STR based border procedures, self-policing, and how to access financing.

Issue 4: Poor market intelligence trade promotion

Equal to large and SME operators is the need for access to up-dated market intelligence on regional markets. This encompasses understanding dynamics in consumer preferences for product types, presentation and taste, and regarding changes in price levels for the different fish products. Also information on changes in supply and prices of input to aquaculture as fingerlings and feed are missing. Thus the industry is deprived of key information upon which to base or adapt their market strategy. In some countries the gathering of market intelligence is mandated to public sector agencies, but there are actually no such activities going on.

Pointer 4: Missing market intelligence can lead to arbitrary and wrong market strategies at company level. In a historic situation, where the demand for fish products is growing regionally, combined with a slow increase in purchasing power, this in not only missing an opportunity it can be devastating to the industry and hence cause a misuse of scarce national resource wealth. If the products made are not known outside the national border regional trade in such products will be slowed down. The following should be done:

- Gazette regulations that clearly identifies the agency responsible for market intelligence gathering and dissemination and trade promotion (it should be the same agency);
- Develop standards for information typology and communication flows to ensure the information is structured and harmonised;
- Train staff in how to carry systematic market intelligence searches for fish products and input supply on the above basis;
- Organise regional sessions with similar agencies to participate with a view to establish common grounds of understanding and to build a network;
- Analyse the need for fish product trade promotion activities particularly designed

for the SME level. This can be in terms of arranging trade events, exhibitions, fairs, support the SMEs financially to secure participation within the country and also in similar events regionally;

- *Create awareness about the support programmes using, radio, TV, mobile phones and printed matter;*
- *Use the professional association as vehicle both for communication and for the promotion of new government initiatives relevant to the sector and trade.*

Issue 5: Market adaptation and product development

Intra-regional trade was found to be low, thus depriving the consumers of the use of white protein from fish as a supplement to food security. Products such as sundried fish suffer high post-harvest losses, in particular during the rainy season due the simple processing methods. Part of this issue is also related to inadequate infrastructure for intra-regional fish trade in terms of lacking or poorly equipped collection centres, distribution facilities, receiving centres, and retail markets. Such facilities are not regularly inspected by the CA, which is also the case at some border crossings posts, making the products from these facilities non-compliant to the SPS requirements.

Pointer 5: *The substance matter of this issue is economical by nature, meaning that only investment can improve the situation. It is therefore advised that the national authorities should:*

- *Identify best practice in fish drying or other processing and apply these methods via training programmes;*
- *Identify best practices for the design of border line market place facilities with a view to solutions that are justifiable also economically*
- *Promote the ideas of innovation that is to encourage the development improved fish processing & value-addition with better durability and/or new products, eco-labelling, make bilateral agreements e.g. with DR Congo;*
- *Create awareness and sensitize stakeholders on regional fish trade via meetings, workshops, printed and electronic media.*

ANNEX

6. ANNEXES

- Annex 1: Trade Readiness Questionnaire
- Annex 2: Terms of reference
- Annex 3: List of Consultations
- Annex 4: Referenced Documentation
- Annex 5: Country TRD (under separate Cover)

6.1. Annex 1: Trade Readiness Questionnaire

This regional Trade Readiness Questionnaire (TRQ) is adapted to Small and Medium sized Enterprises (SME) operating in the fisheries sector such as fishers, aquaculture operators, processors and traders. The main purpose is to provide the company management of existing operators trading at local/domestic markets with a self-assessment tool to check their willingness to and capacity for entering into regional trade in fish products. It is also useful for larger enterprises that may be engaged in international trade to consider the regional markets as a potential outlet for their products and thereby assist the improvement of food security in the region.

To participate in regional trade, however, poses some new challenges for the SME management in terms of applying the valid trade rules and procedures when engaging in cross border trade. Rules and procedures cover the administrative processes requested by trade agents and the customs services. It further includes compliance with food safety issues to make sure that only healthy products are being traded regionally. The latter is not just reasonable as a public health concern, it is a de facto requirement as most of the regional countries are members of WTO and hence have to comply with the SPS agreement, RECs as COMESA EAC, and IOC are all WTO complaint and thus regional trade has to comply with the WTO rules, agreements, and standards. The questionnaire will make the user aware of the different requirements and introduce ways ahead in the process. At the same time it introduces the cost considerations that regional trade does entail. As financial and human resources usually are scarce companies that see regional exporting as a possible new or expanded activity, but are uncertain about requirements and resource implications, will have to prioritize the resources available. The RTRQ is not designed to provide a full pre-feasibility of commercial viability analysis of engaging

in regional trade but provides the basis to initiate such more elaborate work.

The TRQ is structured in four sections:

- I. The company's identity, present operation, final products and markets
- II. Access to information on regional markets, ability to understand such information and devise a strategy
- III. Trade Technical Requirements
- IV. General management issues

The questions are organized as a set of strings where only options are 'Yes' or 'No'. Selecting the appropriate answer will lead to the subsequent follow-up question in the string, and when at the end of a string a way ahead is suggested. The assessment addresses the company's trade readiness in each area and suggests specific steps the company can take to build on its strengths and overcome potential weaknesses.

I COMPANY IDENTITY

- 1 Company Name:
- 2 Legal form:
- 3 Address:
- 4 Telephone/email:
- 5 Place of registration:
- 6 Present products sold (short description):
- 7 Local/domestic market(s) targeted by product (volume):
- 8 Prior experience with regional trade:

II REGIONAL MARKET ACCESS

A. Market access and channels

1. Is all products sold company gate (farm gate for aquaculture)
 1. If **YES**: Consider expanding to new domestic markets by using whole sale agents as a first step and optimize operations.
 2. If **NO**: Is there an own distribution chain including logistical support (vehicles)?
 1. If **YES**: Is the distribution system only to retail outlets?
 1. If **YES**: Is there a Marketing/Sales Department organizing collection and collation of market intelligence?
 1. If **YES**: Is the staff training in market analysis?
 1. If **YES**: Can the M/S Department access regional market intelligence directly on an own budget?
 1. If **YES**: Try to access regional market information—Go the section B
 2. If **NO**: Have the staff trained in regional market information collection and analysis, and establish a market/marketing budget
 2. If **NO**: Consider the establishment of an M/S Department with dedicated staff
 2. If **NO**: Does the company source logistical support externally and for exports?
 1. If **YES**: Is the partner able to carry your goods across regional borders?
 1. If **YES**: Is the partner also a clearing agent?
 1. If **YES**: Identify trade partners in export country.
 2. If **NO**: Identify a clearing agent and potential marketing partnership in export country
 2. If **NO**: Find a partner for transport and also a clearing agent
 2. If **NO**: Find a partner in logistics and potentially also a clearing agent then go to section B

B Availability of market intelligence on regional markets.

This section focuses on how you get reliable and up-dated market intelligence (prices/product specifications/volumes)

2. Does the company generate its own market intelligence on regional markets?
 1. If **YES**: Are the sources of information always available and reliable?
 1. If **YES**: Has your company been approached foreign firms in terms of inquiries for products?
 1. If **YES**: Continue with the good work, but consider getting more systematic market intelligence from other non-biased sources (see below)
 2. If **NO**: Has the Company access to collective sources of trade market intelligence?
 1. If **YES**: Is the collective source a Chamber of Commerce or a professional association that collects, collates and disseminates the information?
 1. If **YES**: Use such sources and levy pressure on them to produce exactly the information that the Company needs and to remain up-dated
 2. In **NO**: If the source is a Public Sector authority levy pressure on it to include also information on trade in fish products
 2. If **NO**: Is the Company Member of such collective bodies?
 1. If **YES**: Exercise pressure on the body to start collecting and disseminating market intelligence
 2. If **NO**: Become a member or assist the process of establishing such a body e.g. a professional association.

C. Market and Marketing Strategy

Based on the above questions an existing market strategy may need to be up-dated or a new one established.

3. Is there an existing market and marketing strategy for regional trade?
 1. If **YES**: Does it include all elements such as promotional material, advertising, contact data bases and participation in trade fairs and exhibitions?
 1. If **YES**: Refine the market strategy and be sure to add costing of the elements
 2. If **NO**: Can the Company get financial or other support from public agencies to develop a marketing strategy?
 1. If **YES**: Has the Company addressed such agencies?
 1. If **YES**: Did you succeed in getting support to e.g participate in trade fairs?
 1. If **YES**: Get more assistance and implement the strategy.
 2. If **NO**: Use your association to lobby for such support.
 2. If **NO**: Is the Company owners willing to commit funds and invest into the development of a market strategy?
 1. If **YES**: If there is no M/S department put together a small dedicated group of managers/staff to develop the strategy.
 2. If **NO**: Try to identify and approach other external sources of funding for the marketing strategic work
4. Is the product competitive pricewise in the new markets?
 1. If **YES**: Go ahead
 2. If **NO**: Is there solid knowledge on how to produce a competitive product?
 1. If **YES**: establish the technical parameters and associated budgets

III TRADE TECHNICAL ISSUES

D. Trade procedures and Technicalities

This section focuses on the procedural requirements when trading regionally and also on the technical requirements to the products. The latter is essentially related to food safety requirements for fish products.

5. Is the Company management aware of procedures and requirements related to regional trade?
 1. If **YES**: Are the procedures and technical requirements necessary to obtain export permits and CA health certificates known to management?
 1. If **YES**: Can the Company make use of the Simplified Trade Regime (STR) promoted by COMESA?
 1. If **YES**: Is the Trade Information Desk at border crossings known, and is the simplified CoO possible to use (that is if you trade for less than USD 1,000 per batch)?
 1. If **YES**: Go on - trade under the STR, or if you are a small scale trader register under the CBTA. You save time and money this way.
 2. If **NO**: Get information on the STR and how the use it form the CBTA unit in your,
 2. In **NO**: The Company will have to trade under standard REC trade regimes
 2. If **NO**: Obtain information on how to get export permits and CA health certificates from. the Ministry of Trade, Revenue and /or Customs Services. A consultant or a clearing agent can also be used.
 2. If **NO**: Product technical specifications including requirements to packaging/ labeling are decided by the importing country. These requirements however will least have to comply with WTO standards, thus information can be obtained with the importing country's authorities (National Bureau of Standards, National WTO enquiry points; and in some cases similar authorities in your own country.




IV GENERAL MANAGEMENT

E. Trade procedures

This section focuses on some of the more pertinent issues that SME management and owners have to address as part of the Company and Business development process.

6. Is the Company management aware of the cost of additional marketing efforts in terms of advertising, media campaigns etc.?
 1. If **YES**: Will such costs be funded from own sources?
 1. If **YES**: Are the owners ready to commit additional funds and how much per year could the company afford to spend on export development?
 1. If **YES**: Go ahead establish the necessary budget and get on with it.
 2. If **NO**: Can funding be sought for external sources such as banks, projects etc.?
 1. If **YES**: what are the cost and access requirements and can the costs be recovered?
 2. If **NO**: Further expansion into regional trade may prove very difficult.
7. Is it possible to get Gov't of assistance for company development and training?
 1. If **YES**: Will this happen through general SME oriented development programmes?
 1. If **YES**: Check the requirements to be part of such programmes for SME development and apply.
 2. If **NO**: Use the professional associations to lobby for more SME assistance programmes also including donor funded ones for fisheries development
8. Is the national/para-statal export promotion authority aware of the specific needs of the trade in fish products?
 1. If **NO**: Use the association to lobby for introduction of the specific requirements
9. Is the company management willing to invest into product development to meet the tastes and other product requirements of the consumers in the regional markets
 1. If **YES**: establish the necessary budgets required and train staff as needed
 2. If **NO**: Regional trade could be severely hampered

6.2. Annex 2: Terms of reference

 <div style="text-align: center;"> <p>AGROTEC CONSORTIUM</p>  </div> 	
Assignment Name	Implementation of a Regional Fisheries Strategy (IRFS) for ESA-IO Trade Readiness document
Mission Schedule Number	4M1.1.1-TOR
Coordinator	Chris Short, KE3; Coordinator of RESULT 4: Regional Trade Strategy
Technical Verifier	Chris Short, KE3; Coordinator of RESULT 4: Regional Trade Strategy
Background to assignment	<p>The IRFS programme (SmartFish) was launched in February 2011 with the aim of contributing to an increased level of social, economic and environmental development and deeper regional integration in the ESA-IO region through the sustainable exploitation of fisheries resources. The programme is financed by the European Union under the 10th European Development Fund within a total financial contribution of Euro 21 million. The programme is implemented by the Indian Ocean Commission (IOC) in collaboration with the Common Market for East and Southern Africa (COMESA), the East Africa Community (EAC) and the Inter-Governmental Authority on Development (IGAD). Other regional institutions involved include the Southern African Development Community (SADC) and regional fisheries management organizations, such as the Indian Ocean Tuna Commission (IOTC), the Southwest Indian Ocean Fisheries Commission (SWIOFC), the Lake Victoria Fisheries Organization (LVFO), and the Lake Tanganyika Authority (LTA). The first phase of the programme will be implemented over a period of 31 months (March 2011-September 2013).</p> <p>The overall objective of the programme is to contribute to an increased level of social, economic and environmental development and deeper regional integration in the ESA-IO region through the sustainable exploitation of fisheries resources. The expected results and outcome of the programme falls into the following five categories: fisheries governance; fisheries management; monitoring, control and surveillance; regional fish trade and food security.</p> <p>This assignment falls under the Result 4 (regional fish trade component) of the project. The development of a regional trade strategy is the thrust of the programme. This will be implemented through national and regional level trade and marketing approaches and national and regional consensus to support strategy development.</p> <p>The national fish trade strategy formulation process is an exercise to identify orientation and supporting actions for strategy development at the national level, but the agreed strategy has to be up-dated continuously to reflect changes in market conditions and improvements in national trade capacities. This activity relates to the preparation of an important document at the national level to ensure readiness for regional fish trade. The proposed document is to be a guideline that is complementary to the process of developing a national fish trade strategy and it would provide a basis for follow-up initiatives at the national level, whilst informing RECs of the process for regional perspective and ultimate integration.</p>

	<p>level, but the agreed strategy has to be up-dated continuously to reflect changes in market conditions and improvements in national trade capacities. This activity relates to the preparation of an important document at the <u>national level</u> to ensure <u>readiness for regional fish trade</u>. The proposed document is to be a guideline that is complementary to the process of developing a national fish trade strategy and it would provide a basis for follow-up initiatives at the national level, whilst informing RECs of the process for regional perspective and ultimate integration.</p> <p>The SmartFish programme, Result 4, has a programme output as follows: ESA-IO trade readiness requirements are outlined, developed and implemented for inclusion in national strategies....</p> <p>One Result 4 programme output focuses on assuring that the national fish trade strategy formulation and development process follows a common and harmonised approach, which then can be synthesised into a regional level approach. The present document therefore would serve as a guideline for the national authorities to create a trade enabling environment through a participatory dialogue process, and for sector stakeholders/operators to improve trade readiness. The guideline would indicate main elements to be discussed nationally for improving the fish trade enabling environment. In addition, it would indicate important aspects of compliant trade readiness to be implemented by the private sector operators. The results of the elements will become the building blocks of the national level fish trade strategy with a regional focus.</p>
Issues to be addressed	<p>The specific task is to: Prepare a guideline for a fish trade readiness document for 4 countries, namely (in visit order) Zimbabwe, Zambia, Uganda and Mauritius</p> <p>Two specialist s are required for this assignment: Trade /Economist/ Policy Specialist, Team leader (1 person) Fish Market Specialist / Aquaculture Specialist (1 or 2 persons to be defined)</p>
Activities of the Consultant	<p>The <u>Trade Specialist would lead</u> the effort and commence the mission on his own to address the report outline presented below. Other specialists in the areas of market and aquaculture development are expected to be identified by the Trade Specialist during this first mission to investigate and prepare specific components of the document that are not addressed by the Trade Specialist. The Trade Specialist will then work with the others to complete further field work and prepare a final document that outlines the requirements for trade readiness from a country perspective vis-à-vis regional fish trade. The previously completed SmartFish Trade Assessment Study will provide important background to this assignment. The final document contents should follow, but not necessarily be restricted to the following:</p>
	<p>1. Background Competitiveness Analysis</p> <p>This section should contain a brief (max. 1-3 pages) overview of the present status and rationale for enhancing regional and external trade.</p> <p>This section should identify the country's strengths weaknesses, and opportunities for increased regional and external trade in fish products</p>

Status on constraints related to rules based trading
Commitments under WTO/RECs – focus on outstanding issues
Building a trade enabling environment

This section should describe what the Government has done /will do to create a trade enabling environment to support the private operators' trade readiness.

- Has the government optimised administrative approaches for the exporters and importers e.g. established a One Window approach for exporters and importers?
- Is there financial support mechanism for exporters and importers to promote the industry products and allow producers/traders to participate in trade shows?
- Are there mechanisms in place to assure easy access to investment and operating capital, and credit? Do they work?
- Are there FDI friendly policy and a One Window approaches for investors?
- Are there facilities available for fish product development supported by government?
- Is there easy access to relevant food safety training facilities for industry on a vocational training basis?
- Continually improve standards of fish marketplaces and physical infrastructures (public, utilities, market places, cold stores, roads, railroads ports, and airports with chill room/cold stores)
- Ensure critical repair and maintenance procedures are in place to continue performance of critical fisheries infrastructures

Identify steps to establish a fish product trade policy negotiation consultation forum based on a participatory dialogue process

This section should outline the steps necessary for the professional associations of the fisheries sector to form a forum to formulate a national fish product trade strategy for increased regional trade. Key issues to be addressed:

- Has the sector organised itself into professional associations at sub-sector level that have clear mandates regarding policy dialogue and consultation?
- Do the sub-sector representatives participate actively in the trade strategy formulation process and consultations? Are there representative bodies / associations?

Private sector trade readiness

Outline the key issues that the private sector operators (producers, processing companies, import and/or export trading companies have to consider when preparing for regional an international trade). This section should include a questionnaire that the company managers will have to address on a regular basis. The questionnaire should consider in particular the issues pertinent to the SME segment of the sector. Some of the key questions would be:

	<ul style="list-style-type: none"> • Are company managers aware of food safety and TBT issues? • Have companies established and implemented a food safety quality control pyramid (a compliant system integrating factory design, and prerequisite programmes overlaid by a HACCP plan)? • Do products meet the needs of foreign consumers (taste, quality, price level)? • Will my products meet the technical standards as packaging, labeling requirements of the regional/global market? • Are best General Management Practices applied? • Can I navigate the administrative procedures (red tape) of the export-import world on my own or will I need a third-party's help? • Where will I find suppliers and partners? <p>Regional Context & Recommendations</p>
Expected outputs	
Format of each report	<p>VARIOUS REPORT FORMATS TO BE AGREED WITH SUPERVISOR IN ADVANCE. Final Report to include:</p> <ul style="list-style-type: none"> • MS Word Styles for IRFS Programme Reports and Technical Papers • Structure • Title pages in model format as per other Programme Reports – to be supplied • Table of contents, to three levels, formal format – to be agreed • List of annexes if appropriate • Tables of tables, figures and pictures all formal format • Abbreviations and acronyms • Layman's summary (one paragraph encapsulating key elements that can be used in magazine/web i.e. not over technical) • Executive Summary (1 to 2 pages), in English, and French • Introduction • Main body of report divided into different sections as appropriate, normally Context, Methodology, Performance in relation to TOR, and Discussion (up to 20 pages) • Conclusions and recommendations (each recommendation must be preceded by a conclusion, that refers to a discussion in the main body of the report) • Annex 1 Terms of reference (if appropriate) • Annex 2 Schedule and people met (with contacts) • Annex 3 Aide Memoire (max. one page on execution of mission, findings, conclusions, and recommendations in bullet points) • Any other annexures as appropriate • Format as per PMU indications.

6.3. Annex 3: List of Consultations

Date/time	Main organisation	Target unit/ activity	Name of Person/ Position	Position	Contact details email
05-12-2011	MoA	DLPD	Mr. Bothwell Makodze	Director	bmakodze@gmail.com
06-12-2011	MoA	MOA	Misheck Ngoshi/ Senior	Fisheries Officer	misheck.ngoshi@yahoo.com
06-12-2011	MoA	Permit Office	Ms. Junior Jambaya Mbaimba	Desk officer	
06-12-2011	AgriBank	Small Scale loan Dept.	Mr. Joseph	Desk officer SME	
06-12-2011	Ministry of Industry	Deot. Of International Trade	Mr. Megness Musehgi	Head of Department	mchikwana2004@yahoo.co.uk
06-12-2011	Ministry of Agriculture	DLPD	Mr. Makodze	Director	
06-12-2011	MoA	Veterinary Technical Services, Public Health Aspects, Health Certificate, Permits Office, CA	Dr Laurance Dinginya	Director	
06-12-2011	Mo Environnement and Natural Resource Management	Parks and Wildlife Authority	Dr. N. Nbuboko	Sen. Officer	
07-12-2011	MoA	EDept. Economics & Markets, Marketing and Trade Section (Permit Office)	Ms. Junior Jambaya Mbaimba, Ms. Gamuchiray Musamadya	Sen. Trade officer Principal Trade Economist	saigamu@gmail.com
07-12-2011	KKPAZ	Harare	Mr. Nesberth Mapfumo	Chairman	vbhonyongwa@zimtrade.co..zw
07-12-2011	ZIM-Trade		Mr. Bhonyongwa,	Director	

08-12-2011	MoA	DLPD, Div. Veterinary Field Services, Veterinary Technicla services; Univ. Of Zimbabwe, Dept. Biological Sciences	Dr. Makodze, Dr. Clinton, Dr. Papewbeza, Dr. Josphar Nyika, Dr. Maxwell Barson	Director Director Director Lecturer	bmakodze@gmail.com lesleykaps@yahoo.com nyika@yahoo.com barson@science.uz.zw
09-12-2011	CZI Confederation of Zimbabwean Industry		Mrs. Lorraine Chikenya	Chief Economist	lchikanya@czi.co.zw
09-12-2011 12:00	LHA	HQ, Harare	Mr. Patrick Blow	Chairman	patrick.blow@africancentury.co.uk
09-12-2011	EU-Delegation	Food Security and Environment	Mr. Sévérin Mallec	Desk officer	severin.mellec@ec.europa.eu
10-12-2012	KKPAZ		Mr. Mapfumo	Chairman	
10-12-2012	Kariba Bream Farm		Phil Nickolson	Managing Director	
11-12-2012	Mash Ltd (Kapenta)		Mr. Mapfumo	Director	
11-12-2012	George Hall Fresh Frozen		Mr. George Hall	Director	
11-12-2012	Harowell Distribution		Mr. George Hall	Director	
12-12-2012	MoENRM	Park & Wildlife	Dr. Tendanpenyi	Sen. Ecologist	
13-12-2012	Min of SME rural development and cooperatives	SME dept-	Mr. W.R Goba	Secretary general	wrgoba@gmail.com
13-12-2012	SEDCO		Mr. Stanslous MAKUSHA	Managing Director	stanislalmakusha@gmail.com
08-01-2012		International travel			
09-01-2012	Smartffish Team	Coordination/ Comesa discussion			

10-01-2012	Ministry of Agriculture and Cooperatives MACO	Dept. of Fisheries	Mr. Mainza Kalonga	Focal Point, Deputy Director, Department of Fisheries Headquarters	mukansubo@gmail.com
	Lake Harvest Depot, Lusaka	Management	Mr. Steve Chindove	Logistics Manager	steve@lakeharvest.com
11-01-2012	Lake Harvest	Distribution Center, Lusaka	Mr. Steve Chindove	Logistics Manager	steve@lakeharvest.com
11-01-2012	National Milling Corporation	Sales and Customer Services	Mr. Kenny Kafuta	Manager	kenny@nmc.co.zm
11-01-2012	FAOZ		Sakala Lacuson Jarius Mulenga Chowa Michael Bwalya Maybin Mutale	President Director Operations, National Secretary, Vice President	
11-01-2012	FAOZ	Chiworia Fish Market in Lusaka	Sakala Lacuson Jarius Mulenga Chowa Michael Bwalya Maybin Mutale		
12-01-2012	Capital Fisheries		Brent Stubbs Wasalipa Mutambo	General Manager, Salesman/ driver	brent@capitalfisheries.co.zm
13-01-2012	Blue Wave	Management	Mr. Nelson	Manager	bluwavezm@gmail.com
13-01-2012	Zambeef	IMPORTS & EXPORTS	Mr. Jack B. Simutowe	Manager	jacls@zambeef.co.zm
13-01-2012	Min of Agriculture and Cooperatives	Min of Agriculture and Cooperatives			
13-01-2012	Min of Livestock and Fisheries	Dept. Of National Vet. Services	Dr. Caesar H. Lubaba	Deputy Director	Caesar.lubaba@gmail.com
14-01-2012	Kafue Integrated Fisheries	Bream Farm			
14-01-2012	Siavonga Fishing village	Bream fisheries	Kizo Chulu, CHAIRMAN . Justine	Chairman	
15-01-2012		Draft report and questionnaire			

16-01-2012	Min. of Livestock and Fisheries	Dept. of Veterinary Technical Services (CA)	Caesar H. Lubaba	Deputy Director,	Caesar.lubaba@gmail.com
17-01-2012	Min of Commerce, Trade and Industry	Dept. of Trade	Mathias Mwela	Director	Mmwela@mcti.gov.zm
17-01-2012	Zam. Dev. Agency	Micro and Small Enterprises (MSE)	Internat'l Travel	Director	
18-01-2012	British Airways	Internat'l Travel			
UGANDA 15 to 22 April 2012					
15-04-2012	British Airlines	Internat'l travel CPH-LHR-Entebbe			
16-04-2012	Greenfields Uganda Ltd.	Industrial Fish Processor/ Exporter	Philip Borel	Managiang Director	iil@infocom.co.ug
16-04-2012	Ministry of Agriculture, Animal Industry and Fisheries	Dept. of Fisheries	Daisy Olyel Aciro	Senior Fisheries Officer	Senior Fisheries Officer
17-04-2012	Uganda Fish Processors and Exporters Association (UFPEA)	Industrial Fish Processors Association Secretariat	Ovio Katii Matuvo William M. Tibyasa	Chief Executive Officer Administrative Assistant	oviakk@yahoo.com tibsbf@yahoo.com
14-04-2012	Ministry of Tourism, Trade and Industry	External Trade Deptment 1 Regional and Bilateral Trade Division 2 Multilateral trade division	Emmanuel Mutahunga Koluo FRANCIS	acting principal commercial officer Senior Commercial Officer	fkoluo@mtti.go.ug; fkoluo@uahoo.com
18-04-2012	Walimi Fish Farmers' Cooperative Society (WAFICOS)	Fish Farmers Co-op Society Secretariat	Ms. Kobusingye Lovin Ben Kidu	Administrator Coordinator	waficos08@yahoo.com benamu7@yahoo.com
18-04-2012	Uganda Fish Packers/Alpha Group	Industrial Fish Processor/ Exporter	Mr.Sujal Goswami	General Manager	sujal@alphauganda.com

18-04-2012	Source of Nile Fish Farm Ltd.	Industrial Aquaculture Farm	Patrick Blow Abudala Napuru	Business Development Director Project Manager	patrick.blow@africancentury.co.uk anapuru2002@yahoo.com
18-04-2012	NgeGe/Fresh Perch	Industrial Fish Processor/ Exporter	Mr. Saju Thankappan	Managing Director	saju4perch@gmail.com
18-04-2012	African Century Foods Ltd	Large Scale Aquaculture Investment - Uganda	Mr. Patrick Blow	Business Development Director	patrick.blow@africancentury.co.uk
19-04-2012	Uganda Export Promotion Board	Trade Promotion Agency	Mr. William Babigumira	Deputy Executive Director	william.babigumira@gmail.com
19-04-2012	Uganda Industrial Research Institute (UIRI)	Pilot Meat Processing Plant	Mr. Mark Maysiiko	Head of Plant	markmatsiiko@yahoo.com
19-04-2012	Kati Farm Suppliers Ltd.	Marketing and Sales supervisor (Catfish Sausages)	Ms. Kobusingye LOVIN	MD	katifarms@yahoo.com
20-04 10:00	Uganda Revenue Authority	Customs Department	Mr. Stephen Magera Mr. Deo Bitariho	Ass. Commisioneer Trade Manager International Affairs	smagera@ura.go.ug
20-04 10:00	MTTI	TA unit for EPA Trade And Private Sector Support (TAPSS) - EU funded	Dr. Lindani Ndlovu	Team Teader	lindanindlovu@2epatapss.co.ug
20-04 10:00	ACPFISH II	Regional Implementation Unit	Mr. Koane Mindjimba	Regional Manager for Eastern Africa	k.mindjimba@acpfish2-eu.org
20-04 10:00	Uganda Bureau of Statistics	External Trade Statistics	Ms. Aliziki Luvega	Head of Department	aliziki.luvega@ubos.org

20-04 10:00	MTTI	External Trade Department 1 Regional and Bilateral Trade Division 2 Multilateral trade division	Mr. Stephan Kamukama	Senior Commercial Officer	skamakura@mtti.go.ug
21-04-2012	Smartfish	Drafting and submitting Aide Memoire			
22-04-2012	South African airlines	Internat'l travel Entebbe-Lusaka			
20-04-2012	South African airlines	Internat'l travel Entebbe-Joburg-Lusaka			
23-04-2012	COMESA	Agriculture and Fisheries	Mr. S. M. Salim Mr. John B. Chirwa Mr. M.K Ndiweni	FP CBT Coordinator, Chief Economist & Trade Analyst	jchirwa@comesa.int
23-04-2012		CAADP	Ms. Marths Byanyima	SPS expert	mbyabyima@comesa.int
23-04-2012		Trade Department	Mr. Peter malinga Mbubi Mr. Yusuf Atiku Abdella Mr. Frank Mugyenyi	Senior Customs Expert, Regional trade Policy Advisor	pmalinga@comesa.int
24-04-2012		CAADP	Ms. Marths Byanyima	SPS expert	mbyabyima@comesa.int
24-04-2012		COMESA Business Council	Ms. Sandra Uwera	CBC Coordinator	suwera@comesa.int
25-04-2012		Agriculture and Fisheries	Mr. Thierry M. Kalonji Mr. John Chiwera Mr. S. M. Salin	Ag Director, Investment Promotion and PSD	tkalonji@comesa.int
25-04-2012		Trade Department	Dr. Francis Mangeni	Director of Trade, Customs and Monetary Affairs	fmangeni@comesa.int
26-04-2012	South African airlines	Internat'l travel Lusaka-Joburg Mauritius	Departure		

COMESA 23-25 April 20112					
30-04-2012	SMEDA		Mrs.	Managing Director	
30-04-2012	Min. Fo Fisheries		Mr. Mauree Daroomalingum	Director	
30-04-2012	MEXA		Danielle Wong Sadna AMMEARALLY-NISTAR Lillotwe	MD, Manager Advisor	sadna@mexa.mu
30-04-2012	MCCI	Economic Analysis and Industry Division	Dr. Rengandan PADAYACHY	Manager	rpadachy@mcci.org
30-04-2012	Banks Fishermens Operators Association (BFOA)	National Cold Store Company Ltd.	Mr. Rajesh GHINA	Manager	
02-05-2012	Enterprise Mauritius	EPA negotiaing group	Bunree		dev.chemroo@em.intnet.mu
02-05-2012	MEXA		Lillotwe		
02-05-2012	Min. Of Fisheries, MRA				
02-05-2012	Ferme Marine de Mahéburg		Mr. Jerry Khee Choy, Mr. Olivier Daguin, Mr. Kris Mongelard	MD, Operations Manager, QA Manager	jerry.kheechoy@fmm.mu
03-05-2012	SESKEL Enterprises Ltd.		Mr. Oliver Ng	Project Manager	seskel@intnet.mu
04-05-2012	Livestock Feed Ltd.		Mr. Roy Forget Mr. Denis Rivet	Managing Director Manager	Rforget.lfl@food-allied.com

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ACP Fish II: Action Planning for Improved Regional Fish Trade for Sustainable Fisheries Management., Kampala, October 2011.

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Hempel, Erik f. SmartFish,: The Workshop Programme, Lusaka and Entebbe. Mauritius, 2011.

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Washington D.C, November 2011 (for Mauritius,
Uganda, Zambia, Zimbabwe)

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the Greater ASEAN Region, Findings from the
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ANNEX 5

Country Reports Trade Readiness Document (TRD)

July 2012

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LIST OF ABBREVIATIONS

ACP	African Caribbean and Pacific states
AZT	Aquaculture Zimbabwe Trust
BMU	Beach Management Unit
CA	Competent Authority
CBC	COMESA Business Council
CBT	Cross Border Trade
CBTD	Cross Border Trade Desk
CEPT	Common External Trade Policy (COMESA)
COC	Chambers of Commerce
COMESA	Common Market for East and Southern Africa
CoO	Certificate of Origin
CTTFP	Comprehensive Trade and Transport Facilitation Programme
CU	Customs Union
CZI	Confederation of Zimbabwean Industry
DFID	Department for International Development
DRC	Democratic Republic of Congo
EAC	East Africa Community
EC	European Commission
EDF	European Development Fund
EPA	Economic Partnership Agreements
EPA-TAPSS	Economic Partnership Agreement -Trade and Private Sector Support (Uganda)
ESA	Eastern and southern Africa
EU	European Union
FAO	Food and Agriculture Organisation
FAWG	Fisheries and Aquaculture Working Group (Zimbabwe)
FTA	Free Trade area
GCI	Global Competitiveness Index
GCR	Global Competitiveness Report
GHP	Good Hygiene Practice
GMP	Good Manufacturing Practice
GDP	Cross Domestic Product
GSP	Generalised System of Preferences
HACCP	Hazard Analysis Critical Control Points
HS	Harmonised System
ICBTA	Informal CBT Associations
ICT	Information and Communications Technology
IRFS	Implementation of a Regional Fisheries Strategy
IO	Indian Ocean
IOC	Indian Ocean Commission
IGAD	the Inter-Governmental Authority on Development
LVFO	Lake Victoria Fisheries Organization
MAAIF	Ministry of Agriculture, Agro-Industry and Forestry (Uganda)
MAMID	Ministry of Agriculture Mechanisation and Irrigation Development (Zimbabwe)
MCTI	Ministry of Commerce, Trade and Industry (Zambia)
MFN	Most Favoured Nation
MOIC	Ministry of Industry and Commerce (Zimbabwe)
NPWL	Nature Parks & Wildlife (Zimbabwe)
NTB	Non-Tariff Barriers
OCT	Overseas Countries and Territories
MOIC	Ministry of Industry and Commerce (Zimbabwe)
NPWL	Nature Parks & Wildlife (Zimbabwe)
NTB	Non-Tariff Barriers

OCT	Overseas Countries and Territories
PRP	Pre-Requisite Programmes
PTA	Preferential Trade Area
REC	Regional Economic Communities
REFORM	Regional Food and Risk Management Programme
RoO	Rules of Origin
PACT II	Programme for building African Capacity for Trade II
PPP	Public Private Partnership
PRP	Pre-Requisite Programmes
RTFP	Regional Trade Facilitation Programme
SACU	Southern Africa Customs Union
SADC	Southern African Development Community
SCD	Simplified Customs Document
SEDCO	Small enterprise development Cooperation (Zimbabwe)
SFP	Strengthening Fishery Products Health Conditions in ACP/OCT Countries
SME	Small and Medium scale Enterprises
SMEDA	Small and Medium Enterprise Development Agency (Mauritius)
SPS	Sanitary and Phytosanitary agreement
STR	Simplified Trade Regime
TAS	Trade Assessment Study
TBT	Technical Barriers to Trade
TNG	Tripartite Negotiating Group
TID	Trade Information Desk
ToT	Terms of Trade
TMSA	TradeMark Southern Africa
ToR	Terms of Reference
TR	Trade Readiness
TRD	Trade Readiness Document
TRQ	Trade Readiness Questionnaire
UEPB	Uganda Export Promotion Board
UFPEA	Uganda Fish Processors and Exporters Association
ULUA	Uganda Lake Users Association
UIRI	Uganda Industrial Research Institute
USD	United States Dollar
WAFICOS	Walimi Fisheries Cooperatives
ZDA	Zambian Development Authority
ZNCC	Zimbabwe National Chambers of Commerce

ANNEX 5: GENERAL INTRODUCTION

Under this cover, and as Annex 5 to the Main Text of the Trade Readiness Document (TRD), the Country Reports of the four countries visited are presented. The country annexes address on an individual country basis findings relevant to SmartFish Result Area 4M1.1: 'ESA-IO trade readiness requirements are outlined, developed and implemented for inclusion in national strategies'. This forms part of the component: 'Development of trade strategies at national and regional levels'; with the aim of contributing to an increased level of social, economic and environmental development and deeper regional integration in the ESA-IO region through the sustainable exploitation of fisheries resources. The main output of 4M1 is a set of national fish trade strategies aiming to increase and enhance inter-regional trade in fish products.

The SmartFish programme, Result 4M1, has a programme output as follows:

..... ESA-IO trade readiness requirements are outlined, developed and implemented for inclusion in national strategies....

The TRD is conceived as a pilot intervention that aims to identify the key requirements and obstacles to trade that have to be removed for the timely implementation of government policy that support a trade enabling environment. Improved trade readiness for the private sector operators is one tool to be enhanced, in particular for Small and Medium Enterprises (SMEs).

Four countries Zimbabwe, Zambia, Uganda and Mauritius were visited to discuss with relevant authorities. Focus of the country report is on the trade enabling environment and the status regarding trade readiness for their industries. Consequently each country has a sub-annex presenting the main findings and associated recommendations relevant to it. To avoid overlaps the Trade Readiness Questionnaire is not

presented in this volume but only in as an annex to the Main Text as it is common to all countries, also Standard annexes are only presented in Volume I Main Text.

METHODOLOGY

The methodology is presented in the Main text volume and has been the same for all four countries, with the TRD intervention carried out for one country at a time focusing on the particular industry needs. However, as the IRFS has a regional perspective, the mission to the selected group of countries also becomes a discussion of methodology, where lessons learned from the first four country visits was used as base for further elaboration and refinement of methodology, and for the outputs: the government oriented guideline and the TR questionnaire for the industry.

Field missions were originally planned to be consecutive, but the inclusion of additional countries and other urgent SmartFish assignments received by the team leader, resulted in an interruption of the field visits' continuity. However, from these additional activities some important information also proved useful for the TRD.

Phase II – Field missions

The field missions took place as follows (the Consultations held in each country and with the RECs are appended to the country annexes):

- Zimbabwe December, 04th to 15th, 2011
- Zambia (1) and Mauritius (1) January, 08th to 23rd 2012
- Uganda, Zambia (2), and Mauritius (2) April, 15th to May 02nd 2012

It is noted the Zambia was visited twice, which is due to the fact that a fire at COMESA headquarters in late December made it impossible to arrange meeting there with relevant officials. The second visit to Zambia therefore only involved TRD related discussions with COMESA officials, and the outcome of the discussions is not presented in this annex. The same applies to discussions held with IOC.

Relevant on-going development partner interventions

TradeMark Southern Africa (TMSA)

Wholly funded by the UK's Department for International Development (DFID). 2009-2014 Implementation. Budget: British £100 million.

TMSA is a follow-on from Regional Trade Facilitation Programme (RTFP) funded by DFID between 2003 and 2009. The overall TMSA goal is '*Sustained rapid, inclusive growth and poverty reduction in the SADC and COMESA regions*'. The purpose of the programme is '*To improve southern Africa's trade performance and competitiveness for the benefit of poor women and men*'. TMSA is hosted by the Common Market for Eastern and Southern Africa (COMESA). The main, but not exclusive, beneficiary is the Tripartite of Regional Economic Communities (COMESA, East African Community (EAC) and Southern African Development Community (SADC)). The programme supports the strategies of the Regional Economic Communities (RECs) to deepen economic integration, and increase trade, infrastructure and growth in the Southern Africa regions. TMSA also directly assists the World Trade Organisation (WTO) Least Developed Countries (LDC) Group in Geneva to negotiate the Doha Development Agenda so as to allow LDCs to fully benefit from the multilateral trading regime. Among other assistance to in provided for improvement in trade facilitation and border crossing issues.

REFORM (with CBT and STR), Funded by the EU, Implemented by COMESA

The large scale Regional Food and Risk Management Programme(REFORM) has as overall objective to contribute to sustainable reduction of vulnerability to food insecurity and poverty in Eastern and Southern Africa. It has a number of components in particular two are of direct interest to TRD:

A) The Cross Border Trade project (CBT).

The CBT REFORM component started in April 2009 with the overall objective to contribute to improved food security by liberalising cross border trade in particular for food. An increased trade in food should lead to a reduced price differential between surplus and deficit areas on either side of the border provide an incentive for farmers to invest and supply and so improved food security. The CBT project has set up focal points in the Ministry of Trade in 10 countries whose governments in 2006 agreed to pilot the STR. These countries are Zambia, Zimbabwe, Malawi, Uganda, Kenya, Rwanda, Burundi, Sudan, DR Congo and Ethiopia.

The concept originates from Zambia, 1997, and aimed to improve conditions for small scale traders conducting informal (non-registered) trade by forming associations for these, the associations are now called Informal CBT Associations (ICBTA). The idea was further to simplify trade formalities at reduced costs for the organised small traders. The project started in April 2009 and was set to run for 2 years until June 2011, but an extension to January 2012 was granted, and according to the discussion held may be continued under the PACT II programme.

At COMESA, the project has set up a Cross Border Trade Desk (CBTD), which works with Cross Border Traders and issues pertaining to small traders. The desk also seeks to coordinate and inform stakeholders of all activities regarding cross border trade including the EAC and SADC. A dedicated website plays an important role¹ in the flow of information. At national level the CBTD has helped establish Trade Information Desks (TID) in each a country at ministerial level, who assist the establishment of ICBTAs, and in the border station areas, and TID officers at the border crossings. The TID officers assist the ICBTA members with completion of the necessary forms (and also helps build the association).

B. Simplified Trade Regime Implementation (STR)

The other agenda of the CBT desk is to help governments to implement the STR. The CBT REFORM has helped establish the STR in the 'southern zone' of COMESA between Zambia,

Zimbabwe and Malawi, and is now assisting the same process in EAC countries and DRC. The implementation of the STR is subject to an on-going review to see how it can be improved before rolling it out. The STR has three elements:

- A simplified Certificate of Origin obtainable from Customs as the trader leaves the country.
- A bilaterally agreed Common List of goods that may use the STR, and these lists are also displayed in the border offices and offices of the ICBTA/TID.
- A simplified Customs document, that is filled in as the trader enters the country he is exporting to.

In order to help the small trader the idea of having a simplified certificate of origin developed. Participating governments have agreed that for small scale trade in goods that originating from within the FTA, traders will not need to carry a full Certificate of Origin (normally only issuable in the capitals). The Common List of Products agreed between two neighbouring member States will serve as "the Certificate", this list includes most food items, thus the negotiation of the list is bilateral and not FTA wide). The certificate, called the Simplified Certificate of Origin, would be issued at the border by the customs officer and would be for consignments of USD 1000 or less.

A customs declaration is needed for revenue collection, statistics and administrative purposes. Under the COMESA version of the STR, the trader fills in a Simplified Customs Document (SCD). This allows trade information to be captured for statistics².

The experience so far is partially positive in that ICBTA are formed and some trade is registered, and partially negative in that the level and pace of capturing and formalizing more trade is to some extent hampered by the small charges and duties levied.

In direct terms many small scale traders still find it cheaper and less time consuming to revert to the informal way. In addition, more substantial traders do now parcel their Common List consignments

¹ Visit: www.cbtcomesa.com

² To the benefit of the RISP programme, implemented by COMESA, specifically seeks to improve the availability of statistics in the region. Progress is being made, with a focus upon statistics to support continued economic integration (such as trade liberalisation at FTA or CU level).

into STR qualifying parcels and send these across by bicycling traders. In particular, for fish products the STR has limited value as the only bilateral Common Lists known between Malawi-Zambia, Malawi-Zimbabwe, and Zambia – Zimbabwe, do not include fish products. Thus STR is not applicable and there is still some way to go (or bicycle) before the informal trade in such products will become registered.

Trade Readiness Information Sources

Trade Enabling Environment

The important aspect of assessing the public sector's effort towards building a trade enabling environment is based on discussions with relevant authorities in the four countries. In accordance with the SmartFish priorities the SME oriented enabling environment is in focus, but also important initiatives to the benefit of larger scale operators are included when found relevant for positive side effects on SMEs. It is noted that the structure and organisation of the public sector do vary considerably between the four countries. To some extent this reflects directly the level of economic development and liberalisation of the economic sectors and trade. Relevant authorities may therefore have different affiliations into government structures, different mandates and means available as regards their role in supporting the private sector. A given authority may cover more than one aspect/portfolio. The authorities selected are grouped as follows:

- Export promotion agencies
- Investment promotion agencies,
- SME support and development authorities
- SME Bank and credit delivery facilities
- Ministry of Trade(the relevant foreign trade department)
- Chambers of Commerce (depending on mandate an financing the organisation in some cases in more private sector affiliated)
- Revenue and Customs Services
- Ministry of Agriculture/Fisheries/ Environnement (mainly the fisheries and aquaculture services)

It is part of the objective to identify what is deemed 'good practice' in one country, and thereby act as a pro-active agent in promoting an executing regional trade, which then may serve as inspiration in other countries, where the trade enabling effort lacks behind. In fact limited or poorly designed mandates and lack of resources

(legal, human and funding wise) may prove an obstacle to trade.

Private Sector Operators

Trade readiness is a private sector oriented activity. Hence the bulk of the effort has been to meet the various players in this sector with focus on the SME segment. However, also large players have been included as these often have well established trade networks and hence have completed their own TR strategy. Such players can be used as 'good practice' cases or be seen as 'stars' for the SME segment and for sector development in general. Knowledge on actual consumer preferences and tastes, trade methods and patterns, are lodged with larger companies. As policy the TRD team has decided to keep company level information confidential as some businesses may be sensitive to an exposure of their strategic considerations, thus data are presented summarised and in anonymous form in this report.

It has been a key point to identify organisational structures at sub-sector level that can speak on behalf of a group of operators. Such organisations can on the implementation phase of SmartFish be used a vehicles for delivery of training and TA (and not directly to one SME operator only). So before leaving for field visits the team visited webpages on national level associations for fish producers, processors and traders. In addition the SmartFish focal points were contacted with this objective in mind. Professional associations were contacted directly as well, but as expected these almost exclusively catered for large scale operators.

Identification of the level of association for the SME segment was done mostly upon arrival in the country since such information is not available elsewhere. The main reason for the difficulties in identifying such SME associations is their tendency to be very small in capacity and often managed by one of a few families acting as 'fire souls'. Such associations are not necessarily formalised or registered with authorities, and tend to focus on issues of a quite local nature as the fisheries of one species in one lake/water body. Nevertheless such associations may have the potential to become a voice of the SMEs in the national debate on strategy and a delivery mechanism for SmartFish Technical Assistance (TA). Finally, fisheries relevant Non-Governmental Organisations were consulted.

ANNEX 5.1 - ZIMBABWE

Participation in Regional Trade and Markets

Historically intra-regional trade has not played an important role for Zimbabwe. The main reason found was related to the crisis and post-crisis situation where aquaculture production was virtually shut down. Only a few enterprises have taken up production since year 2000 in Tilapia aquaculture on Lake Kariba and in Kapenta fisheries. The only trade in fish products was Tilapia exported to Europe as gutted and frozen and fillets on ice.

There are virtually only two products produced and traded:

- Tilapia, either whole round on ice or whole frozen
- Kapenta, always lightly salted and sundried.

Tilapia Products

In recent years small trade with regional countries have been initiated, and there are clear indications that some players seriously consider these markets to display growth potential at a commercially viable level.

One large scale Zimbabwean player has made direct investment in neighbouring countries since 2010 to take advantage of being the first important producer/processor/trader in that part of the SmartFish Region. Tilapia based products is the key species traded. Fresh on ice whole round and frozen gutted tilapia constitute increasingly important volumes in this trade.

However supply is short of demand. Volume deficits and price ranges in these regional markets are presented in table 1 below, based on a study³. The study shows that there is a gap of 97,500 mt per year and thus ample scope for production and trade. The main regional market is Zambia where strong demand is indicated also for fresh whole round fish, which is produced at lower cost. Other neighbouring countries as Mozambique, RSA, Zambia, South Africa, but also markets in Angola, DRC, Namibia, are actively trading Tilapia. The limiting factor to rapid growth in this trade is the scarcity of production capacity, cold chains and infrastructure related issues, limitations push the unit costs up.

Imports of frozen whole tilapia from China into the region have been the main supply source for

Table 1: Prices and demand gap for tilapia in some countries

Country	Indicative Retail Price range per kg whole gutted fresh/frozen tilapia	Approx. current shortfall per annum (tonnes)
Namibia	US\$3.00 – 4.50	>5,000
South Africa	US\$4.50 – 5.50	>10,000
Botswana	US\$4.50 – 6.00	>5,000
Mozambique	US\$4.00 – 4.50	>10,000
Angola	US\$7.00 – 9.00	>10,000
Zimbabwe	US\$3.00 – 4.00	>7,500
Zambia	US\$2.50 – 5.00	>20,000
Malawi	US\$2.50 - 4.00	>10,000
DRC	US\$2.00 – 2.50	>20,000

Source: INFOSA in collaboration with National Liaison Officers in the SADC Member states mentioned, updated 2010. Note that these are conservative figures.

³ conducted by INFOSA and followed up by the TRD Team in 2011

some time. These products sell at prices of USD 1.25/kg or well below the local production cost. An advantage for local aquaculture is that local producers are in a better position to make product adaptation to the local consumers' taste. In Zambia the team was informed that fresh on ice tilapia from Zimbabwe is preferred over the frozen imported products, mostly as the sizes of the fish and the taste are a better match. The team also witnessed the arrival of a new shipment of Zimbabwean tilapia that was sold very quickly in a virtual fight between local trading women and housewives. Despite the price of the product was close to twice that of the Chinese frozen product (an estimate of sub-regional market sizes and prices are presented in Table 1 below).

Prices vary for a number of reasons; in major towns and cities prices tend to be higher. In some cases, farmed fish has been noted to attract higher prices than wild fish. It is noted that prices are very high in Angola and in some markets in the DRC, but the cost of distribution can also be high.

The rise in demand and competitive prices in Zambia has attracted many investments in aquaculture across the country.

Kapenta products

The small pelagic species is in Zimbabwe fished by catamaran rigs that stay anchored on the lake. The quality of the product depends both on how the catch is made and on the post-harvest handling and processing method applied. A healthy catch and post-harvest method as in Zimbabwe is of key importance for the potential local value addition and trade. SmartFish has intervened by offering a training of trainers short course on Fish Handling, Quality Assurance and Processing in Kariba in June 2012. The course, which was well received, is expected to go a long way in improving the plight of small scale fishers and fish processors around the Lake.

Fishing goes on a night with shallow lift nets. The staff is transferred to and from by a special transfer vessel that also carries input to the fishing activity, catering items, and transports the catch back to the landing place normally on company premises. Fish is salted lightly on board the rigs and is sundried on coverable drying racks. The final products is packed in bags, weighed and sold at plant gate.
Formal and informal trade

Trade in Tilapia is for the large scale producer (Lake Harvest Farm) on a formal basis. Small scale Tilapia and Kapenta producers trade with RSA, Zambia, Mozambique and DRC and most if not all of this trade is on an informal basis, but this is difficult to verify as the producers sell at farm or company gate. The buyer, who can be Zimbabwean, or Zambian, or from a third country, collects the produce and may resell it, transfer is to a whole sale markets in Zimbabwe, or take it directly to the border.

Trade in Kapenta is always informal following the above pattern. There is no investment made into marketing and transport. Kapenta is a healthy protein rich product and when dried on coverable racks, as at Lake Kariba, protection against rain and animals/birds produces a quality product. Racks are guarded by staff to scare off birds and to apply the covers. The quality is much better and losses are reduced to 5 - 10% according to Kapenta fishermen and processors.

On informal trade, there are reports of rampant illegal trade that happens within the lake for Kapenta and other fish products that are traded mainly to the Zambian counterparts. This is difficult to quantify but is believed to have picked up during the Zimbabwean economic crisis peak (2004-2009), where fishermen would trade Kapenta caught with fuel or other basic commodities which were scarce on the Zimbabwean side. Various parties have indicated lack of data collection mechanisms plus lack of capacity in MSC.

Border crossings for such products is on information trade basis, and is not known in great detail, but repacking into smaller parcels that are duty free and then transported across the border on bicycle is one way. To improve and formalise this trade an initiative was taken by Zambia in 1997 to form a regional Cross Border trade Association (CBTA). Zimbabwe followed after Zambia in 2000 and has a membership of over 10,000⁴ but only a few are paid up. According to COMESA it is a common problem that CBTAs do not seem to offer the needed services to its members. For Zambia this affects mostly women as majority of its members are women (70%). The association has been instrumental in implementation of STR, and brokering of several deals with financial institutions and government. There has been some level of success in applying the Simplified Trade regime (STR) to fish trade. The STR is basically

⁴See *Cross Border Trade Bulletin*, Quarterly magazine form REFORM, no 2 Nov. 2101 Jan 2011. See also: <http://www.cbtcamesa.org>

a simplified trading/customs procedure which has been tailor made for small consignments (of USD500 or less) in order to allow its users benefit from the Free Trade Arrangement of COMESA.

Under the REFORM programme and with the aim to formalise trade COMESA supported the CBTA programme by capacity building and putting in place technical assistance via the Trade Information Desk Officer (TIDO). CBTA is now present in Zimbabwe, Zambia, Malawi and Uganda. It is in operation at on selected Zimbabwean border crossings (Chirundu, Kariba, Victoria Falls etc.). The initial result was positive. The ability to legalise trade by just having to register with the CBTA, fill in simplified customs documents, a simple certificate of origin done on the spot, and a health certificate also issued on the spot with the aid of a TIDO and at a low cost compared to standard formal trade conditions, was found attractive. Informal traders became aware of the programme advantages and used the facility when crossing the border. The numbers of users of the STR increased from 131 in June to 330 in July 2010, or an immediate increase of 250% in usage.

Zimbabwe has not yet started capturing the STR through their automated system of customs data administration, ASYCUDA, and it is assumed that until then it is difficult to quantify the changes attributable from STR implementation. TIDOs were placed at the border to help out traders in filling out STR forms and also try to record the trade (type of product, quantities and value) on a daily basis. This information is still in an unprocessed form, but from a bird's eye perspective trade more goods travel from Zambia to Zimbabwe in general, whereas for fish products it is the reverse. Initially the consignments registered averaged USD 20 per crossing, for fish products the average is higher. For the trader to formalise a duty of say USD 5 per consignment can be devastating for business. The conditions offered, compared to informal trade, are above the capability of the trader and is also involves a time factor. So a large number of traders have fallen back to earlier practices. A Rapid Assessment of the CBTA and STR facilities was conducted in 2011. Among the main findings were:

- If duties are lifted for STR goods then other taxes and several documents have to be completed
- Too little effort regarding sensitization of the traders to the STR programme,

Recommendations on how to remedy the situation and increase usage include:

- STR ceiling to be increased to USD 1,000 per consignment
- Remove the processing fee on STR commodities
- Common Lists to be revised regularly
- Only one trade document for STR goods
- Include STR for all tripartite member countries under one grand FTA

The debate is now on how to provide incentives that will promote the idea of formalisation - that is how to reduce the informal trader's cost and time spent at the border. A second obstacle is that the STR protocol involves bilaterally agreed lists, Common Lists, of products that qualify for STR based trade, thus the COMESA FTA is bent on this point. Unfortunately fish products are rare guests on these lists and hence will still face customs' duties albeit low, hence a disincentive to formalisation.

It is the ambition of COMESA to formalise trade that today is not registered. Registration would provide more precise information on resource use, and also secure the Governments higher level tax revenue as most fish products are not allowed on the bilateral common lists. In particular, for fish products that can play a strategic role in food regional security formalisation has priority. The existing formal trade in fish products is described below by main raw material base.

Competitiveness

Competitiveness of the Zimbabwean produced Tilapia and Kapenta is demonstrated by the product's ability to meet the test of free export markets while expanding real income. The competitiveness of a locally produced fish products also depends on availability of imported similar raw material which could be used as a substitute in the local market.

The parameters that constitute the competitiveness framework for the national industry were identified in the Main Text. The role of the government is to generate an effective platform for competitive enterprises. Government reforms alone are a necessity but not sufficient cause, as has been demonstrated by many countries which have undergone structural adjustment reforms but

have not achieved rapid and sustained growth. Competitiveness is not about the ability of governments or donor agencies to pick winners and losers at the industry or firm level. This has been shown to be extremely difficult and for every success story there are other examples of failure and great waste. However, government does have an important role to play in facilitating investment in capital, investment in human resources, the freeing up of untapped resources, strengthening the efficiency of market forces and the ability of entrepreneurs to translate their visions into reality. Growth in productivity is driven by many factors that can be grouped under three major headings:

- Macro-economic conditions include favourable policy at fiscal, monetary, open trade regime, and other broad and overarching levels that are a necessary but not sufficient cause for growth in production and trade.
- Micro-economic conditions refer to such elements as tax codes, infrastructure, utilities, regulation, education, administration, and many other factors influenced by both the private and public sectors that affect the day-to-day ability of businesses to compete. This also includes support via export and investment promotion and collation and dissemination of market intelligence.
- Quality of business strategy refers to the choices business leaders make about where and how to compete and how to position their companies. It also refers to their effectiveness in implementing their plans and their efficiency in managing their operations, in particular the aspects of increased productivity and efficiency are important

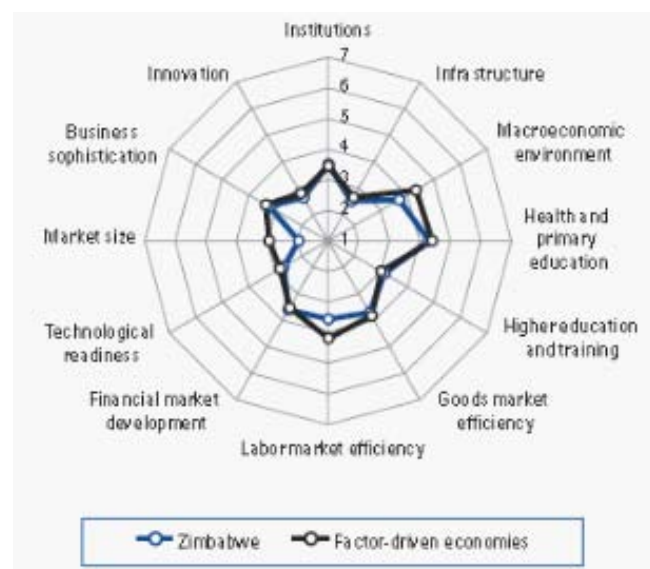
To achieve competitiveness, effort must be devoted to all three of the key competitiveness components. Based on the definition WEF has developed a method of measurement called the 'Global Competitiveness Index (GCI)', it is a composite encompassing 12 pillars of competitiveness aspects where the scoring is based on interviews with government and business managers. It has been calculated annually since 2005 to an increasing group of countries now counting 142.

The GCI pillars are used to group countries according to three stages of development and identify the key drivers that may cause the graduation of a country to a more advanced

stage. Zimbabwe belongs to the factor-driven group of economies that competes based on factor endowments—primarily unskilled labor and natural resources (such as water bodies and fish). Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. Maintaining competitiveness at this stage of development hinges primarily on well-functioning public and private institutions (pillar 1), a well-developed infrastructure (pillar 2), a stable macroeconomic environment (pillar 3), and a healthy workforce that has received at least a basic education (pillar 4). The graphics below (from GCR 2011-2012) demonstrate how well Zimbabwe does (the blue line) compared to the average for the stage of development that they belong to (the black line). If the blue line is outside the black, the indication is that the country fares better than the group average. It is seen that the closer the lines get to the perimeter the more advanced the economy. Zimbabwe fares below the group average indicating limitations in competitiveness.

The GCI is also used to rank the countries from 1 to 142. Table 2 below indicates the present and earlier ranking of Zimbabwe. In terms of rank it is safe to say that Zimbabwe continues to indicate improvements by moving gradually up the ladder. The indication is that the country is moving generally in the right direction by the establishment of a still improved framework for increased competitiveness and productivity of the economy.

Figure 1 Competiveness estimate - GCI spider webs for four TRD countries



Source: GCR, WEF, country pages

The GCI is also used to rank the countries from 1 to 142. Table 2 below indicates the present and earlier ranking of Zimbabwe. In terms of rank it is safe to say that Zimbabwe continues to indicate improvements by moving gradually up the ladder.

Table 2: GCI Ranking and GDP per capita

Country	Group	Rank 2011-12 (142 countries)	Rank 2010-11 (139 countries)	2009-2010 (133 countries)	GDP 2010 (per capita, current USD)
Zimbabwe	Factor driven	132	136	132	594

The above brief analysis of GCI is for all economic sectors. Some factors are of more importance than others for the competitiveness of the fisheries sector and fish product value chain, in particular when it comes to the framework conditions for the SME segment. Some of these aspects are described below.

Macro-economic environment

In terms of the macro-economic policies and the associated status of legal and regulatory framework **Zimbabwe** is marked by a still post conflict economy with a high level of centralism; Government is involved in all aspects of the economy. Most policy areas are still in need of finalization, drafts do exist but the parliamentary situation makes it difficult to pass laws and regulations. Deprived of a broad revenue base, as tax collection is not thoroughly organised, e.g. the mining sector only contributes very little, the Government coffers get income from VAT, Income Taxes, license fees in the various sectors including also fishing/aquaculture in terms of licenses rights to production and for exports.

The introduction of the USD as national tender has stabilized inflation. In daily life the use of the USD as national tender has led to a situation of overvaluation of the economy. The influence on local product prices is markedly and prices for local products have been increased artificially. The little income available for buying goods further limits the overall domestic market. It does create differences in opportunity between those who can access USD, and are not taxed on this s e.g mining sector where concessions are granted tax free, and the large group who cannot access any capital. Poor access to capital combined with low purchasing power has resulted in a cash based economy.

The indication is that the country is moving generally in the right direction by the establishment of a still improved framework for increased competitiveness and productivity of the economy.

Restrictions around land ownership, and availability of means of production do limit entrants into the business community and reduces dynamics. Access to financing does not follow market demand and supply rules, and is complicated and expensive. In fact, this reduces the interest of foreign as local investors to come forward.

There is a general lack of legal and regulatory framework in the fisheries sector, and the institutions related to the implementation of policy and law enforcement are weak and understaffed. For example the Fisheries Research Centre at Lake Kariba is supposed to carry out MSC, inspection services, but has very limited staff and means of transport to do so. Estimates of fish stock in the lake is done either by historical trend analyses or periodical stock assessment surveys, the latter having been recently done after a long period of absence, funded by FAO. In fact much of the regulatory framework dates from well before conflict era, but regulations are not enforced. New laws and regulations on fisheries and aquaculture are in draft form or being drafted, but these are not approved in parliament and there is no certain time frame for when parliamentary debates will conclude. At the moment fish products are traded under STR conditions as mentioned above.

Institutions – Competent Authority and SPS
Development of the institutional set-up is significant for fisheries competitiveness. The TAS identified food safety issues to be a key constraint for developing trade in fish products both internationally and regionally. It further indicated the requirements both at institutional level and for the private companies⁵ to produce and deliver safe SPS compliant products. Respecting the basic principles of WTO is a must:

⁵ See TAS, pages 47-50

- Most Favoured Nation principle – no discrimination of other nations
- National Treatment Principle - means treating foreign and local products equally.
-

The need for Zimbabwe to comply with the SPS requirements is of paramount importance. Compliance is a must for an exporter to supply EU markets and also regional markets. National laws and regulations have to reflect clearly the WTO principles and agreements. These must be applied equally to products from all trading partners when supplying to the regional and local markets. Thus the key institution that needs to be in place to allow regional trade in fish products is an approved Competent Authority (CA) and access to an accredited laboratory (public or private). Zimbabwe has an approved CA, but the extent of the mandate, and the level of staffing both in qualification and quantity is a limitation. In addition there is a marked difference in the progress of law making and up-dating of regulations. The main concern remains the level of implementation.

In **Zimbabwe** regulatory power and inspection activities are lodged with three units, two departments of the Ministry of Agriculture **Mechanisation and Irrigation Development (MAMID)** and the Parks & Wildlife Department of the Ministry of Environment, and Natural Resource Management (MoENRM):

- The *Dept. of Livestock Production* (DLP) looks after the production side of all livestock (on hoof, poultry, and fish) incl. capture fisheries and aquaculture in rivers and lakes. The department also acts as an extension service. The extension service regarding aquaculture and fisheries is fairly new and is staffed by one competent person at headquarters leaving a weak capacity in the countryside. Though it is within the Ministry's mandate to gather market intelligence no regional/ international market intelligence of fish products is gathered. The main concern is that the unit only has appropriately trained staff at head-quarters, and there is virtually no staff in the field and absolutely none with background in fisheries/aquaculture.
- The second unit *Department of Veterinary Services* is the key CA unit with mandate to issue health certificates and supervise DLP regarding inspection/inspectors.

Whereas there is solid expertise in SPS related matters for the meat sector, the capacity of the CA to produce health certificates for fish products is limited.

There is no staff trained in SPS issues for fish products at the border crossings. The capacity regarding issuance of import and export permits for SPS relevant products is in place. Only one producer is approved for EU exports, and hence also regional exports. The CA unit is only staffed by four people at headquarters and has one with expertise in fish products. Capacity for trade analysis and policy formulation, however, is available within the department.

- The *Parks & Wildlife* (PWL) department is responsible for issuance of aquaculture and fisheries permits. Capture fisheries is stagnating at around 25,000mt per annum. Zimbabwe is probably one of countries where aquaculture is growing rapidly, now almost 50% of capture production and growing rapidly. PWL also collates landing statistics by volume for both tilapia/bream and Kapenta fisheries. There is no base survey done and recent stock assessments are based on landing statistics and include a negligible element of biological research fishery. However, the laboratory facility is under reconstruction and was not working at the time of visit.

A cooperation agreement between the University of Zimbabwe (UZ) and the Aquaculture Zimbabwe Trust (AZT), an NGO with an investment fund attached, aims to close part of the staff gap for local extension and inspection staff via newly designed training courses. Courses in aquaculture production have also been delivered in collaboration with INFOSA in the past years. SmartFish has collaborated with the UZ and trained about 20 prospective emerging farmers. Laboratory capacity is only sufficient for some of the analyses required to be carried out for the ex- and import products.

A new strategy for fisheries and aquaculture development exists in draft form and is assisted by the Fisheries and Aquaculture Working Group (FAWG) a quasi-governmental body. Due the uncertainty around the political situation the law making process is at a halt and the valid framework dates back some 2 to 4 decades. Zimbabwe is essentially a meat eating nation; fish

products only play a role in the daily diet in fish producing areas such as Lake Kariba. Commercial scale aquaculture is done by one big player with a few smaller operators as sub-suppliers. The enterprise is approved for exports and exports under a normal trade regime. Other exports (of Kapenta and fished tilapia) are traded on an informal basis (see above).

SME Support Institutions

In particular the SME segment needs considerable attention for it to become a dynamic take-off-for-growth platform in Zimbabwe, and to participate and augment regional trade in fish products. Zimbabwe has defined a set-up of institutions/agencies that are mandated to cater for SME support in terms of training and provision of information. Such facilities are mostly on terms of general and financial management training/education and support. Historic evidence shows that Zimbabwe has strong tradition for both regarding primary education, higher education and vocational training (Figure 1). However since the crisis the trained people have only very few jobs available. Part of the professionals with higher education and other trained people left the country and are now found as managers of e.g. aquaculture businesses in neighboring countries.

In Zimbabwe four different agencies are mandated to work with various aspects of SME support: *ZIM-Trade, Small Enterprise Development Cooperation (SEDCO), and Zimbabwe National Chambers of Commerce (ZNCC)*. Though the agencies are mandated to cater also for SMEs in fisheries and trade in fish products, so far relevant activities has been limited. ZIM-trade is involved with both SME support and export promotion has no programme with a particular focus on fish products. ZIM-trade also issues Certificates of Origin (CoC). There are no staffs trained in the particular aspects of fish production, processing, marketing and trade. Though ZIM-trade formally collects, collates and disseminates market intelligence for regionally marketed products, there is no capacity or experience to carry such activities relevant to fisheries/fish products.

SEDCO is mandated to assist the process of building investment in the private sector. The mandate also caters for the SME segment, but most activities so far has benefitted the larger enterprises. Funding for these activities comes through the Pan African Bank. However there is a

notable exception as it has extended investment and operating capital loans to some of the lake Kariba Kapenta cooperatives for capital goods as rigs and engines etc. and to cover operating costs as fuel. SEDCO has provided training programmes on general, technical and financial management topics, but there is a lacunae regarding trade related areas and the gathering of market information. There is actually no agency carrying out regional market intelligence collation and dissemination for fish products.

ZNCC organises companies from most economic sectors. It acts as lobbyist organisation for the most important sectors of the economy. There is no chapter for fisheries and fish processing and no individual members from the sector.

Ministry of Industry and Commerce (MoIC) is pivotal in coordinating trade policy debate. The Ministry coordinates trade policy debate through the National Coordinating Committee that has membership from ministries, specialised agencies and also private sector representation through *Confederation of Zimbabwean Industry (CZI)*. There are sub-committees for different economic sectors, but there is none for fisheries. So the voice of fisheries is not heard at trade policy debate level.

According to *Agribank*, the key bank offering credit SMEs, only very limited funds are available for credit to the target group. In addition, the conditions for getting credit are prohibitive for SMEs, interest rates vary from 21- 32% and collateral requirements are often 200% of the credit amount asked. Thus the Zimbabwean economy is cash based, and uses the USD as currency which to some extent overvalues the traded items and thereby hampers competitiveness. SMEs tend to fund their needs via generic earnings (from own production results) or via colloquial sources such as family or peer groups, where conditions vary considerably and may not be stable or predictable. The only substantial integrated aquaculture/processing and marketing enterprise bases its funding needs on international sources. Hence development is slow in particular for sectors with limited domestic markets as fisheries.

In the 2010 Mid-Term Fiscal Policy Review Statement from the Ministry of Finance, a lack of capital was identified as a major structural bottleneck for the development of the Zimbabwean economy. The need was stressed that Government

should engage into negotiations with countries and financiers for lines of credit. Another advice from the Ministry of Finance was the establishment of the Zimbabwe Economic and Trade Revival Fund (ZETREF). End of August 2010, the establishment of ZETREF has been successfully concluded with the support of the African Export-Import Bank (AfreximBank).

ZETREF will provide a line of credit facility for benefiting the private sector with US\$100 million and an initial drawdown of US\$70 million. The facility has longer term maturities which is convenient for the industry. ZETREF will be available to Zimbabwean registered companies but by definition with a bias towards small and medium scale enterprises. In particular, it will finance the acquisition of equipment and capital goods for use in enhancing the output and quality of goods and services on one hand; and the purchase of raw materials and spare parts on the other hand.

Beneficiaries can access funding through designated commercial banks some of these have been selected but actual access to the funds is complicated, due to lack of procedures. Thus the application of this fund has been limited, and no funds have been applied for by SMEs.

Limited capital available and difficulties in getting to it has kept off interest by entrepreneurs to venture into the aquaculture sector, where additionally high capital requirements are standard, and lack of skills are further deterrents. Hence potential sources of investment tend to favour other agribusinesses and mining sectors to aquaculture.

Finally for Zimbabwe the crisis has left infrastructures in a poor state. This is not limited to road and railroad conditions (the TRD Team saw how the rail tracks for maize was now just walking paths) but also the electricity supply, and ICT. The once booming economy is only slowly dragging it potential back on track. Electricity costs were until September 2011 heavily subsidized, and the price hike launched has only cut part of this indirect subsidy. For aquaculture in particular support infrastructures as hatcheries, roads, research, training and demo units etc is missing and there is a need to refresh the genetic pool for tilapia. Cold storage and cold chain infrastructure will have to be rebuilt.

Other competitiveness issues

Regional raw material and processed products (e.g. based on Tilapia) face competition from extra-regional imported products that can replace the local product. The one obvious case is the import of frozen tilapia from Asia (mostly China) into Zambia and to ales extent some other countries of the region. The imported tilapia varies only to a small extent from the local product in that it has leaner flesh, and comes in slightly different sizes compared to the local product. The local consumer prefers a fresh-on-ice product, but is willing to sacrifice taste if the price of the alternative product is substantially lower. This willingness is apparently decreasing due to availability of the higher rated local product.

The competing frozen product is sold at prices of USD 1.00 to 1.30 per kg in Zambia. The fresh-on-ice local product from Zimbabwe fetches USD 2.5 to 4.5 per kg. Thus there is a marked price differential. Since fish feed is the main cost component in farmed Tilapia the cost of production will depend largely on the feed cost. Part of the input to feed production is internationally traded such as fish meal and oils, particularly for starter feeds, and will cost approximately the same in Africa and Asia. Other ingredient such soy meal, brans etc. are produced locally, where Africa will be less costly than Asia. Feed conversion ratios are important as it requires at best just 1.9 kg of feed in Africa to produce one kg of fish, whereas in Asia the feed conversion is probably only slightly less. Manpower costs depends on two aspects the efficiency of the production system and the unit cost of labour. Unit cost of labour is less in Africa but efficiencies are likely to be higher in Asia, due to more intensive Asian production methods. Finally transport from Asia to Africa of final product adds an additional cost element to the Asian product. In sum the cost of production and getting the product to the consumer should be lower for the African product, a recent study indicate a cost price on USD 2.25 for African producers⁶. It is therefore a bit of a mystery how Asian tilapia can be sold at a retail market in Zambia at USD 1 to 1.3 per kg of frozen round Tilapia. So part of the cost of production in Asia must be paid by covered or supported by other sources than the producer/producer.

Presently Asian Tilapia is competitive, due to the strange price relationships, in local and regional

⁶ See: 'ADB Technical Review Of Financial Projections -Zimbabwe: Lake Harvest Aquaculture Project'. Zimbabwe, Nov 2011. The producers are: National Milling and Tiger Foods of the Astral group

markets. However, with still improved local production methods and better formulation of feeds the conversion ratio may improve and the cost of local production of feed ingredients certainly will remain competitive, ESA countries have availability of land and cheaper labour. Over time the local tilapia will become also pricewise competitive.

Other imported marine based raw material and final products are not considered replacement products, and hence do jeopardize competitiveness.

PRIVATE SECTOR AND TRADE READINESS

One main objective of the TRD study has been to identify the actual status regarding the use of a systemic approach to engage in regional trade for the private sector operators. The method chosen was based on an adapted standard TR Questionnaire (TRQ) applied in USA and Europe. The TRQ was adapted to the ESA conditions, in particular for SMEs, with a view to enhance regional trade participation for this segment that today trade only domestically. Following Zimbabwe Zambia was second to test the modified version of the TRQ when addressing the industry. For reasons of confidentiality, company references are made anonymous.

Zambia was selected as a fish eating country with high level of fish product import compared to local raw material based products. Only small quantities of final product are re-exported to other regional countries. Fisheries and aquaculture and downstream processing, marketing and trade activities of the fish product value chain appears to be fragmented where coherence in the fish product value chain is most marked for industries that base processing on imported raw material. Yet there is a concentration of raw material activities related to the larger lakes regarding wild tilapia fisheries and tilapia aquaculture. There is not any large scale producer in operations. However, one medium size aquaculture farm was represents a somewhat integrated system (see below); it is managed by Zimbabwean nationals.

A combination of both tradition and the earlier highly centralised regime resulted among other in lack of or a weak institutional framework for an aquaculture industry to grow. It is in many respects an infant industry where the level of private sector organisation the country lacks behind as well. The TRD did not identify a professional association for large scale producers. The alternative is to join ZCC, where there are no chapters for fisheries/aquaculture. For the small scale segment there is an association for tilapia aquaculture (FOAZ).

It was recently established and is rather weak in structure, capacity and funding. However, the membership has grown rapidly and the Lusaka City Council has allocated the association its own space in a large local open market area. There is a dire need to modernise and upgrade the infrastructures (access road, water supply and drainage, cold store facilities and telecommunication). The only other association found was an informal organisation of the tilapia and Kapenta fishers at Siavonga. In both cases the associations' administrators/managers did not have a clear picture of the important role as lobbyist and its potential influence on fish product trade policy. Otherwise for the there is no professional association. This lack of better equipped an integrated professional associations indicates lacunae at policy/institutional level as the voice of fisheries, aquaculture and product trade is not heard.

It is a key point to assess how deep and wide the companies are engaged in the value chain for fish products, in terms of their business activities carried out. There can be many links in this chain but to keep the assessment relevant to TR the following categories of business activities have been applied:

- Raw material producers (fishers and aquaculture operators)
- Key input suppliers as feed and feed ingredients for aquaculture
- Processing enterprises with different products (fresh on ice, filleting, canning, drying, salting, advanced products)
- Marketing/trading activities
- Logistics (includes storage and retail outlets for final products on site and in other regional countries, the ownership or leasing arrangements for transport refrigerated or not, distribution by bicycle and moped for SMEs)
- Professional associations and cooperatives

- Investment facilities and credit institutions form SME operators

For the four TRD countries total of 42 companies and private organisations were interviewed divided on four main groups: Large companies (15), SMEs (13), profession associations and cooperatives (8) and Investment and credit facilities (6)⁷. Table 3 below indicates the split along company economic size, where SME status equals a company with less than 30 employees. Since the wanted output is an assessment of the TR status the unit of analysis is the number of business activities that a given company participates in. Thus the table summarises results by the categories listed above, and thereby also allows a quick insight into the level of vertical integration of a given size company. These results cannot be used for generalised statements at national industry level as the number of cases is too small to allow quantitative analyses based on rules for statistical significance. The results are valid only for the companies and organisations interviewed and are used essentially for qualitative assessment. The 42 companies and organisations display a

total engagement into 96 business activities. If associations and investment credit facilities are disregarded the productive sector companies interviewed engage on average in almost 3 business activities, large companies average engagement in more than 3 business activities, the SMEs average less than 3 activities. It can be said for SMEs that activities related to marketing/trade and logistics are, with a few exceptions, at quite rudimentary levels. They involve selling at the local market using bicycles and mopeds as means of transport with no particular gathering of market intelligence of marketing effort.

The team visited 8 companies in Zambia involved with either fisheries or aquaculture and a combination of the above identified business activities, 25 activities in total. This is on average a good result, and it was found that more businesses were engaged in some level of vertical integration. There is only company displaying participation in 4 business activities and 5 companies participated in 3 business activities. Thus the level of vertical integration is on average compared to other countries.

Table 3: Companies interviewed by economic size and business activity

Country/ Business activity	Mauritius	Uganda	Zambia	Zimbabwe	Total
Large company					47
Fisheries					0
Aquaculture		1		1	2
Feed	1	1	1	1	4
Fish processing	3	5	2	1	11
Trade regional	3	6	3	1	13
Logistics	4	6	4	1	15
Associations	1	1			2
SME					43
Fisheries	1		1	2	4
Aquaculture	1	1	3	2	7
Feed		1			1
Fish processing	3	2	3	2	10
Trade regional	1	2	1	1	5
Logistics	3	1	5	2	11
Associations	1	2	2	1	6
Investment/credit	2	1	1	2	6
Grand total	24	30	26	17	96

Source: GCR, WEF, country pages

⁷ This categorisation is intended to be used in a subsequent larger enquiry to be carried out by disseminating the TRQ via email for a more detailed analysis for all SmartFish countries.

The 42 companies and organisations display a total engagement into 96 business activities. If associations and investment credit facilities are disregarded the productive sector companies interviewed engage on average in almost 3 business activities, large companies average engagement in more than 3 business activities, the SMEs average less than 3 activities. It can be said for SMEs that activities related to marketing/trade and logistics are, with a few exceptions, at quite rudimentary levels. They involve selling at the local market using bicycles and mopeds as means of transport with no particular gathering of market intelligence of marketing effort.

The team visited 5 companies in Zimbabwe involved with either fisheries or aquaculture and a combination of the above identified business activities, 13 activities in total. This appears on average as a good result, but in fact it is essentially on large enterprise that has full integration covering 5 business activities, an only one SME in Kapenta fisheries indicate 3 activities. Thus the level of vertical integration is low compared to other countries.

Large player

Interview results indicate that larger companies are more vertically integrated as expected. It reflects the importance of controlling input supplies in an economy that is import dependent and without supply chains. In the case of fisheries this is particularly true for fish feed and industrial level technology supplies, where virtually all technology is imported into Zimbabwe. Only one aquaculture producer mixes its own grow-out feed, it is considered a key tool to control and optimise feed conversion ratios under the present local water and climatic conditions.

As an example one large company displays full vertical integration in that it covers all the listed activities of the value chain: from aquaculture (brood stock, hatchery, fingerlings and commercial fish grow out) and feed production, processing, storage, logistics system including a fleet of trucks, retail outlets in several countries and a dedicated marketing department. It even produces floating cages based on own design and imported input materials. Feed mixes are formulated based on own research and also uses some local ingredients from agriculture, other key ingredients are imported.

The company is engaged with regional trade based on own logistics. A high level of vertical integration indicates the importance assigned by management to regional marketing/trade aspects. This company has accepted TR as an important business and market development concept and also achieved it in practice.

As exporter one company is aware of the food safety requirements under the SPS agreement and do have CA approved prerequisite programmes (PRP) including a Hazard Analysis Critical Control Points (HACCP) plan on top. For the SMEs in Zimbabwe there is no registered export, however, all enterprises met were not aware that even selling to local markets imposes food safety requirements and also asks the ability to produce documentation for such. Selling at factory gate leaves the buyer with exactly the same problem - without a CA approval the food items are de facto not deemed good for human consumptions (even if the quality of the sold products actually were found acceptable). In most cases there is still scope for improvement. The rationale for a high level of integration is the need to assure for example input supplies based on own manufacturing and hence also the ability to control and document quality.

The large enterprise is almost fully owned by foreign capital and is fully vertically integrated. The advantage is that technical and managerial know-how and marketing/export experience is brought into operation, and also less costly foreign financing is available and is managed by skilled officers. In Zimbabwe the large enterprise was established this way and the transfer-of-technology is only now beginning to show as such elements of business operations are considered of strategic importance. The company even has invested in new production facilities in a different regional country to take advantage of its in-house know-how and adapted technology. The downside of foreign ownership fully or partially is that financial resources are exported as well, and if owners based abroad decide to close a company local jobs and knowledge will become idle.

The company strategy was to focus on export markets in particular EU-markets. However, a study funded by the African Development Bank, and the company itself, aimed to establish and provide information that could, if possible, sustain company capacity expansion and development based on a new marketing strategy. This strategy would be based on trends in tastes, products types

and prices in the regional markets. The study was carried out by the TRD team and among the main findings the volume and price relationships depicted in Table 1. Today the company has invested in expanded logistical systems, and retail outlets in Zimbabwe and Zambia. Final products do reach as far as DRC, Angola and South Africa, however these exports are carried out by middlemen traders.

As there is no professional association that has direct contacts tin government participation in trade policy debate is negligible. When exposed to the TRQ the main trade related concern expressed by the large player includes:

- How to get the product to the consumer in regional markets in good time and at reasonable cost

The obstacles include:

- General lack of market intelligence,
- The consumer's ability and willingness to pay for quality,
- Poor infrastructure
- High trade cost involved and limitations in trade facilitation.

The company more the less assumes that market intelligence kind of business services is part of the mandate of public export promotion agencies. In Zimbabwe there is no such activity carried out by ZIM Trade or ZNCC.

Additionally, the TRD team found that the large operator does not have problems in selling/ exporting their products to the regional markets or the EU-markets. In fact the constraint is on the raw material supply side. It does explain the reluctance to engage in new development by restructuring part of the production capacity to meet preferences in the regional markets. The company has engaged in the production of new products for the regional market such as round fresh on ice Tilapia. This product refocus is a cheaper solution processing wise, and the revised market strategy points clearly towards regional markets where demand outrange production capacity by a factor of one to ten and prices are at getting towards attractive levels.

Consumer preferences in Zambia clearly points to Zimbabwean produced whole round fresh on ice (or frozen) tilapia over the imported Asian product. The TRD team witnessed at the company's

retail outlet in Zambia an almost physical battle between the buyers (fish mongers buying to resell elsewhere in Zambia, and house wives coming far distances.

SME Operators

The SME segment of operators interviewed is owned and managed almost exclusively by local groups/families. The availability of funding therefore has limitations and local access to credit is prohibitive in Zimbabwe due to high interest rates, approval procedures and collateral requirements. Ownership often goes hand in hand with active involvement in daily management, where the company manager is also responsible for financial and marketing management. This mix of roles keeps the company in a certain fixed position from where graduation to a higher level of development is difficult, not least due to the fact that the owner/manager would have to decentralise decision making power over part of the company.

Vertical integration is limited to fewer business activities, normally involving production, local sales and simple logistics (bicycles and mopeds). A notable exception is Kapenta fisheries where one company controls both the fishing rigs (the main investment) and in some cases also the processing (drying and packaging in sacks) facility. Marketing is by hearsay, where the buyer brings his own means of transport, in most cases pick-up trucks, to the company gate and is responsible for the product from then on. A considerable amount of product is actually resold at domestic town and city markets, and some even reach markets in neighbouring countries - the product is considered of good quality as it is dried on coverable and guarded racks.

The perishable products from other fishery and aquaculture only undergo little and simple processing (drying, salting, smoking, fresh on ice). It is a common constraint in relation to regional trade; it was found particularly for the SME operators that the processing method limits the shelf life of the product. Transporting the product using bicycles and mopeds and in some cases pick-up trucks is a further constraint. Products can only reach markets within a certain perimeter depending on road and weather conditions. It is a must to find products of a longer durability and better means of transport.

There is ample scope for smaller companies

to learn from larger integrated systems in the approach to management. A good case is in Zimbabwean aquaculture where the control of the grow-out process is well documented for larger companies. Control involves a well-designed lay-out of pond schemes in the optimal locations, cage design, and adaptation of feed to the local conditions, feed application, water flows, monitoring of the stock for disease, and good harvesting and post-harvest handling methods. Traditionally these aspects are not well understood by SME operators. Many SME operators have invested into aquaculture production because false rumours tell that profits are high and quick. Hence the tumbling of new unprepared SME operators, who enter a specialised production, into aquaculture production - failures have been abundant.

The presence of a 'star' company that can act as centre of excellence and guide the investors can save many resources for the investor as for the country. When exposed to the TRQ marketing planning and strategy were aspects of business that the SME had hardly thought about. In the present situation the production is easily sold at farm/factory gate. Also in this regard the 'star' company can assist SMEs.

It is not surmountable tasks to up-grade aquaculture grow-out or fishing/post-harvest handling techniques to meet basic food safety requirements and thereby produce regionally marketable products. With such improved and marketable products the marketing strategy can be expanded to capture regional markets.

The limiting factors related to TR for SMEs include:

- Lack of formal managerial and production technology skills,
- Lack of dedicated/specialized training institutions on aquaculture
- Only superficial knowledge about quality assurance systems and SPS requirements,
- Limited knowledge on how to source financing,
- Expensive credit
- Very limited knowledge on trade regulations and border crossing procedures.
-

These factors were found at play in several cases by the TRD team. In fact when going through the draft TRQ most SME operators indicated

very limited understanding of the concept and the underlying requirements to SPS (food safety issues), trade regulations and border procedures. With only one exception there is no targeted support from the Zimbabwean government agencies designed to meet SME needs of the fish product value chain. There are now some course carried out as cooperation between the University and AZT. But such courses are based in capitals and the important marketing aspect has no focus on fishery product issues. SME development and trade promotion agencies should display similar course ion requirements the trade customs documentation, but not in Zimbabwe. Otherwise training in SME fishery and aquaculture has been the domain of development partner programmes, which is particularly valid for the necessary knowledge on SPS requirements. The Zimbabwean SMEs suffer from the same lack of access to market intelligence as do the large companies.

In one case the association was established to assist the handling of registration of fishing activities by members and to assist the registration of landings. It acts in other words only in the local context not nationally. Generally the association was not aware of the necessity to contact government and become a voice in trade policy debate.

The ICBTA programme executed by COMESA does a commendable job in the process of establishing SME border traders' associations, but there is no specific training of traders in fish products issues. The latter group however has good use of the training in general and simplified (STR based) border procedures. The TRD team informed association representatives about the potential roles that an association can have in trade policy debate, and the importance that this has for the members.

KEY ISSUES AND POINTERS (RECOMMENDATIONS)

Through discussions with TRD stakeholders, findings of major recent studies and programmes, and own observations mentioned in the report text, a number of key issues were identified. These are presented below together with initiatives that the national authorities and private sector operators and their associations can use, when further developing the trade enabling environment. Note that the term 'pointers' rather than 'recommendations' is used, as issues found in four TRD countries have to be considered. Conditions do vary substantially between the countries; hence, more detailed pointers/recommendations are only applicable at national level. The main recommendation is therefore dedicated to the private sector operators in terms of the Trade Readiness self-assessment tool: the Trade Readiness Questionnaire (TRQ), which has been adapted to the SME level of business in the fish product value chain. TRQ is presented as an Annex 1 to the Main Text so that it can be lifted off the TRD for actual use (it is not repeated in the list below and is not annexed to the country reports):

Issue 1: Informal trade and border procedures

Zimbabwe has made a positive contribution to an otherwise very limited intra-regional formally registered trade. However, there is also a substantial informal trade. Thus much more intra-regional trade than what is officially recorded exists. Informal trade means that the border crossing of fish products take place in small non-dutiable quantities and cannot be recorded in statistics under the existing reporting systems. Informal trade practices provide a somewhat diffuse and even confusing picture to the national authorities when trying to analyse statistical trade data for planning and policy development purposes.

Pointer 1: *Informal trade lead to insufficient information and statistics on intra-regional fish trade in volume and value and by different product*

types. The value-chain and actual extent of the informal trade should be resolved by committing the national authorities to practise and promote:

- *As Zimbabwe already participates in the COMESA CBT programme the link should be re-enforced increase the number ICBTAs that are trained in and practice STR;*
- *Enhance the Customs Department's, ZRA, capacity to collect systematic data by providing training in collection method and the establishment of an electronic means of transfer which is then needed for policy and planning purposes.*
- *Practise of firm statistical collection and reporting by the TIDs locally and centrally;*
- *A regional fish trade information and database system should be established at the level of the Agriculture Department COMESA, to be more detailed than the COMTRADE. The data collection points should be clearly identified and mandated and with transfer of operating knowledge via information, communication and outreach programs.*

Issue 2: Inadequate capacity for SPS control in border areas

Zimbabwe has an approved CA. However, insufficient institutional capacity and shortage of human resources with appropriate training, and limited funding are important issues. This was identified as a key problem for SMEs; in particular the outreach to SME operators is missing or weak. The result is that Zimbabwe does not practice full implementation of the SPS agreement which also applies to intra-regional and domestic trade. It follows that fish control and inspection is inadequate and the fish products for human consumption may not qualify as safe to eat. In fact the local trader and operator also violates the SPS related commitments as there clearly is no

documentation for traceability, which is an element of the Pre Requisite Programmes (PRP).

Pointer 2: *It is important that template guidelines, protocols, PRP manuals, HACCP plans and their means of verification are standardised, harmonised and designated/gazetted and is made available at all local points of extension service and border crossing. Qualified staff should be present at these points to deliver inspection services and training to the particularly the SME operators. This may lead towards compliance with the SPS agreement for fish products that are traded mostly intra-regionally (smoked, sundried, salted products, chilled and even some frozen products):*

- *Standards equal to the SPS and Codex Alimentarius or otherwise relevant ISO standards for capture fisheries and aquaculture should be developed and be promoted to operators, and templates for PRP and HACCP plan should be established and disseminated to the local points of extension service and border point inspection unit;*
- *Extension service (and also CA) staff should be trained in how to adapt the templates to the local production lines and aquaculture operations;*
- *The professional association should be informed about the SPS requirements and the templates, including traceability, in an easy to understand form and be able to disseminate these to their members;*
- *Build capacity with the CA in particular in the border areas, so that inspection and control is done by adequately trained staff.*

Issue 3: High cost of trade due to poor trade facilitation

Trade facilitation is an issue as regards implementation of the commitments under existing FTAs signed by REC members, in particular for COMESA countries, where a general template for a Customs Union exists. As a result of poor trade facilitation, transaction costs for fish products are very high in continental Africa, partially due to the poor quality of physical infrastructure, but also as a result of border crossing procedures SPS, and other issues around formality. The latter may involve up to four days of waiting for a truck to pass. However, part of this issue is addressed by the large scale programmes under the Tripartite region's and COMESA's leadership.

Pointer 3: *Political will and good governance, exercised by the participating members of COMESA and the Tripartite negotiation process for a region-wide FTA, is a key element to its success. It is therefore important that the fishery sector is not marginalized in the deliberations at national, regional or international level and that Trade Readiness is enhanced. To hear the voice of particularly SME in fisheries as regards Trade Readiness the following should be done:*

- *Train KKPA association members in STR requirements and procedures;*
- *Establish or equip existing professional associations with mandates to disseminate and promote participation in fish trade policy debate also as regards trade readiness;*
- *Mobilization of the existing SME operator association, and potentially new ones to be formed, in the fish products value chain to form discussion fora locally as a 'cluster' and help define the key actions required to enhance trade readiness;*
- *Capacity building of regional traders and processors associations/organisations in areas such as STR based border procedures, self-policing, and how to access financing.*

Issue 4: Poor market intelligence trade promotion

Equal to large and SME operators is the need for access to up-dated market intelligence on regional markets. This encompasses understanding dynamics in consumer preferences for product types, presentation and taste, and regarding changes in price levels for the different fish products. Also information on changes in supply and prices of input to aquaculture as fingerlings and feed are missing. Thus the industry is deprived of key information upon which to base or adapt their market strategy. In some countries the gathering of market intelligence is mandated to public sector agencies, but there are actually no such activities going on.

Pointer 4: *Missing market intelligence can lead to arbitrary and wrong market strategies at company level. In a historic situation, where the demand for fish products is growing regionally, combined with a slow increase in purchasing power, this is not only missing an opportunity - it can be devastating to*

the industry and hence cause a misuse of scarce national resource wealth. If the products made are not known outside the national border regional trade in such products will be slowed down. The following should be done:

- *Gazette regulations that clearly identifies the agency responsible for market intelligence gathering, dissemination and trade promotion (this should be ZIM-Trade);*
- *Develop standards for information typology and communication flows to ensure the market information is structured and harmonised;*
- *Train ZIM-Trade staff in how to carry systematic market intelligence searches for fish products and input supply on the above basis;*
- *Organise regional sessions with similar agencies from neighbouring countries to participate with a view to establish common grounds, harmonised and standardised information flows and to build a network;*
- *Analyse the need for fish product trade promotion activities particularly designed for the SME level. This can be in terms of arranging trade events, exhibitions, fairs, support the SMEs financially to secure participation within the country and also in similar events regionally;*
- *Create awareness about the support programmes using, radio, TV, mobile phones and printed matter (ZIM-Trade to lead);*
- *Engage the professional association as vehicle both for communication and for the promotion of new government initiatives relevant to the sector and trade.*

Issue 5: Market adaptation and product development

Though intra-regional trade was found to be growing for Zimbabwe, it is still low thus depriving the consumers from the use of white protein from fish as a supplement to food security. Part of this issue is related to inadequate market infrastructure for intra-regional fish trade in terms of lacking or poorly equipped collection centres, distribution facilities, receiving centres, and retail markets. Such facilities a very few in Zimbabwe and are not regularly inspected by the CA, which is also the case at border crossings posts, making the products from these facilities non-compliant to the SPS requirements, and hence non-tradable.

Pointer 5: The substance matter of this issue requires both increased awareness and investment to improve the situation. It is therefore advised that the national authorities should:

- *Identify best practice in fish drying or other processing techniques and apply these methods via training programmes;*
- *Identify 'good practices' for the design of local and border area market place facilities with a view to create solutions that are justifiable also economically;*
- *Promote further investment in aquaculture and/or processing in land based on the application of 'good practices', including development and dissemination of and dedicated Aquaculture Investor's Guideline to avoid poorly prepared investors entering the area;*
- *Promote the concept of healthy production techniques and innovation through the establishment of a dedicated Fisheries and Aquaculture Incubator (probably to be located on lake Kariba and/or other natural centres near important water bodies, SEDCO and ZIM- and local authorities and associations the be involved) to encourage the development improved aquaculture and fish processing & value-addition with better durability and/or new products, eco-labelling.*
- *Create awareness and sensitize stakeholders on regional fish trade via meetings, workshops, printed and electronic media.*

ANNEX 5.2 - ZAMBIA

Participation in Regional Trade and Markets

Historically intra-regional trade in fish products has not played an important role for Zambia. As a fish eating nation Zambia used to import fish products from Asia and Namibia. The main reason found was related to a situation where Government policy did not favour fisheries and aquaculture among the productive sector where mining and agriculture had top priority. Aquaculture production was virtually non-existent until a few years back.

Only a few enterprises of substance have taken up production in Tilapia aquaculture on Lake Kariba, but a large group of SME operators have mushroomed since the new administration took office and liberalised the sector even encouraging investors to come forward. Other kinds of fisheries in rivers and lakes are mostly on subsistence basis including Kapenta fisheries, there is no export except for small amounts of re-exports to DRC. In very recent years regional trade in tilapia products based on imports from Zimbabwe has emerged and continues to grow. There is a fairly wide range of products produced, processed and/or traded:

- Tilapia, either whole round on ice or whole frozen;
- Kapenta, always lightly salted and sundried;
- Canned and frozen products based on marine species (Horse mackerel, hake, oysters and prawn);
- Fish feed.

Tilapia Products

In recent years small scale trade with regional countries have been initiated, and there are clear indications that some players seriously consider these markets to display growth potential at a commercially viable level.

There is no large scale producer, but one medium sized river based farm with earthen ponds initiated regular supply to Lusaka and sell the produce at

local market places plus through an own recently established retail outlet. Otherwise a large number of small farmers practise grow-out mostly of tilapia. One large scale operator in food supply also has initiated the production of tilapia in own small ponds and further buys uses its country wide logistics system to buy fish locally either via contract growing or directly via the farm gates. Such product is marketed via supermarkets and catering. Finally a new association of small scale tilapia growers have established an own markets in Lusaka, however, the infrastructure there is deploring and cannot meet SPS requirements. There is a lack of suitable market infrastructure for the sale of fish products; one notable exception is the retail outlet established by a Zimbabwean company near Lusaka. Tilapia based products is the key species traded. Fresh on ice whole round and frozen gutted tilapia constitute increasingly important volumes in this trade.

The Zambian market has recently shown strong demand for fresh whole round fish, which is produced at a lower cost than frozen products. Such products are marketed in the region as well, mostly in Zimbabwe, Zambia, South Africa, Mozambique and even markets in Namibia and Angola are actively trading tilapia. The limiting factor to rapid growth in this trade is the scarcity of cold chains and poor infrastructure. This limitation pushes the unit costs up. Whole frozen tilapia has already gained foothold. However supply is short of demand. Volume deficits and price ranges in these regional markets are presented in table 1 below. Zambia and DR Congo are the main markets with combined supply shortage of some 40,000 tonnes in 2010.

Supply is short of demand. Volume deficits and price ranges in these regional markets are presented in table 1 below, based on a study⁸. The study shows that there is a gap of 97,500 Mt per year and thus ample scope for production and trade.

⁸ conducted by INFOSA and followed up by the TRD Team in 2011

Table 1: Prices and demand gap for tilapia in some countries

Country	Indicative Retail Price range per kg whole gutted fresh/frozen tilapia	Approx. current shortfall per annum (tonnes)
Namibia	US\$3.00 – 4.50	>5,000
South Africa	US\$4.50 – 5.50	>10,000
Botswana	US\$4.50 – 6.00	>5,000
Mozambique	US\$4.00 – 4.50	>10,000
Angola	US\$7.00 – 9.00	>10,000
Zimbabwe	US\$3.00 – 4.00	>7,500
Zambia	US\$2.50 – 5.00	>20,000
Malawi	US\$2.50 - 4.00	>10,000
DRC	US\$2.00 – 2.50	>20,000

Source: INFOSA in collaboration with National Liaison Officers in the SADC Member states mentioned, updated 2010. Note that these are conservative figures.

Prices vary for a number of reasons; in major towns and cities prices tend to be higher. In some cases, farmed fish has been noted to attract higher prices than wild fish. It is noted that prices are very high in Angola and in some markets in the DRC, but the cost of distribution can also be high.

Kapenta products

The small pelagic species is in Zambia fished by catamaran rigs that stay anchored on the lake. Compared to Zimbabwe their number is only 1/10. The quality of the product depends both on how the catch is made and on the post-harvest handling and processing method applied. Whereas catching methods is the same as in Zimbabwe, the drying method is not on racks and the quality is poorer with higher post-harvest losses. The final product is only marketed locally.

Other fish species

A number of medium to large companies import, process and distribute fish products in this huge country via supermarket or catering outlets. The product range includes canned, frozen whole or fillets. Raw material is bought from Zimbabwe or Namibia (marine species) or via extra-regional imports (Asia and in particular China) and transported by road to the provinces, and even re-exported to DRC. However, the export operation is handed by local MSE traders mostly of a DRC origin located in the border crossing areas.

Feed

There is one producer of animal feed mixes in Lusaka. The line for fish feed is very new and still used only for small batches. The product is sold to the various groups of aquaculture farmers locally as the feed mill has its own logistics system.

Formal and informal trade

Trade in Tilapia with Zimbabwe is imported on a formal basis when the product comes from the large scale producer. Medium and small scale tilapia and kapenta producers trade only locally or via large scale Zambian buyers/distributors. Through resale operations Zambian products can reach DRC and Angola, and most if not all of this regional trade is on an informal basis. It is difficult to verify informal trade as the producers and even distributors sell at farm or company gates. The buyer, who can be any nationality in the border areas, collects the produce and may resell it, transfer it to whole sale markets in Zambia, or take it directly to the border.

Informal trade in tilapia products involves the transport of full or partial truck-loads of fish product arriving at the border. The trading company, which is always registered formally, would have to follow rules and pay the customs duties, which is both a time consuming procedure and has a cost tag. Instead the trading company may compartmentalise the load into small non-dutiable parcels, and pay bicycling traders to carry the goods across informally. In some cases the product is just transported across the border as part of the truck load itself in disguise (or hidden) among other kinds of agricultural produce or commercial products, which in effect is smuggling. Fines are to be rarely paid. However, smaller amounts than fine levels can change hands but such funds rarely reach the Government's coffer.

Border crossings for other fish products is on informal trade basis, and it not is not known in great detail, but repacking into smaller parcels

that are duty free and then transported across the border on bicycle is one way. To improve and formalise this trade an initiative was taken by Zambia in 1997 to form a regional Cross Border trade Association (CBTA). Zambia mastered in 2000 a membership of over 10,000⁹ SME informal traders to the CBTAs, but only a few are paid up.

According to COMESA it is a common problem that CBTAs do not seem to offer the needed services to its members. For Zambia this affects mostly women as majority of its members are women (70%). The association has been instrumental in implementation of STR, and brokering of several deals with financial institutions and government. There has been some level of success in applying the Simplified Trade regime (STR) to fish trade. The STR is basically a simplified trading/customs procedure which has been tailor made for small consignments (of USD 500 or less) in order to allow its users benefit from the Free Trade Arrangement of COMESA.

Under the REFORM programme and with the aim to formalise trade COMESA supported the CBTA programme by capacity building and putting in place technical assistance via the Trade Information Desk Officer (TIDO). CBTA is now present in Zimbabwe, Zambia, Malawi and Uganda. It is in operation at on selected Zimbabwean border crossings (Chirunda, Kariba, Victoria Falls etc.). The initial result was positive. The ability to legalise trade by just having to register with the CBTA, fill in simplified customs documents, a simple certificate of origin done on the spot, and a health certificate also issued on the spot with the aid of a TIDO and at a low cost compared to standard formal trade conditions, was found attractive. Informal traders became aware of the programme advantages and used the facility when crossing the border. The numbers of users of the STR increased from 131 in June to 330 in July 2010, or an immediate increase of 250% in usage.

Zambia has not yet started capturing the STR trade through their automated system of customs data administration, ASYCUDA, and it is assumed that until captured it is difficult to quantify the changes attributable from STR implementation. TIDOs were placed at the border to help out traders in filling out STR forms and also try to record the trade (type of product, quantities and value) on a daily

basis. This information is still in an unprocessed form, but from a birds eye perspective trade more goods travel from Zambia to Zimbabwe in general, whereas for fish products it is the reverse.

Initially the consignments registered averaged USD 20 per crossing, for fish products the average is higher. For the trader to formalise a duty of say USD 5 per consignment can be devastating for business. The conditions offered, compared to informal trade, are above the capability of the trader and is also involves a time factor. So a large number of traders have fallen back to earlier practices. A Rapid Assessment of the CBTA and STR facilities was conducted in 2011. Among the main findings were:

- If duties are lifted for STR goods then other taxes and several documents have to be completed
- Too little effort regarding sensitization of the traders to the STR programme,

Recommendations on how to remedy the situation and increase usage include:

- STR ceiling to be increased to USD 1,000 per consignment
- Remove the processing fee on STR commodities
- Common Lists to be revised regularly
- Only one trade document for STR goods
- Include STR for all tripartite member countries under one grand FTA

The debate is now on how to provide incentives that will promote the idea of formalisation - that is how to reduce the informal trader's cost and time spent at the border. A second obstacle is that the STR protocol involves bilaterally agreed lists, Common Lists, of products that qualify for STR based trade. Thus the COMESA FTA is bent on this point. Unfortunately fish products are rare guests on these lists and hence will still face customs' duties albeit low, hence a disincentive to formalisation.

It is the ambition of COMESA to formalise trade that today is not registered. Registration would provide more precise information on resource use, and also secure the Governments higher level tax revenue as most fish products are not allowed on the bilateral common lists. In particular, for

⁹ See *Cross Border Trade Bulletin, Quarterly magazine form REFORM, no 2 Nov. 2101 Jan 2011*. See also: <http://www.cbtcomesa.org>

fish products that can play a strategic role in food regional security formalisation has priority. The existing formal trade in fish products is described below by main raw material base.

Competitiveness

Competitiveness of the Zambian produced tilapia and kapenta is demonstrated by the product's ability to meet the test of free export markets while expanding real income. The competitiveness of a locally produced fish products also depends on availability of imported similar raw material which could be used as a substitute in the local market.

The parameters that constitute the competitiveness framework for the national industry were identified in the Main Text. The role of the government is to generate an effective platform for competitive enterprises. Government reforms alone are a necessary but not sufficient cause, as has been demonstrated by many countries which have undergone structural adjustment reforms but have not achieved rapid and sustained growth. Competitiveness is not about the ability of governments or donor agencies to pick winners and losers at the industry or company level. This has been shown to be extremely difficult and for every success story there are other examples of failure and great waste. However, government does have an important role to play in facilitating investment in capital, investment in human resources, the freeing up of untapped resources, strengthening the efficiency of market forces and the ability of entrepreneurs to translate their visions into reality. Growth in productivity is driven by many factors that can be grouped under three major headings:

- Macroeconomic conditions include favourable policy at fiscal, monetary, open trade regime, and other broad and overarching levels that are a necessary but not sufficient cause for growth in production and trade.
- Microeconomic conditions refer to such elements as tax codes, infrastructure, utilities, regulation, education, administration, and many other factors influenced by both the private and public sectors that affect the day-to-day ability of businesses to compete. This also includes support via export and investment promotion and collation and dissemination of market intelligence.
- Quality of business strategy refers to the choices business leaders make about

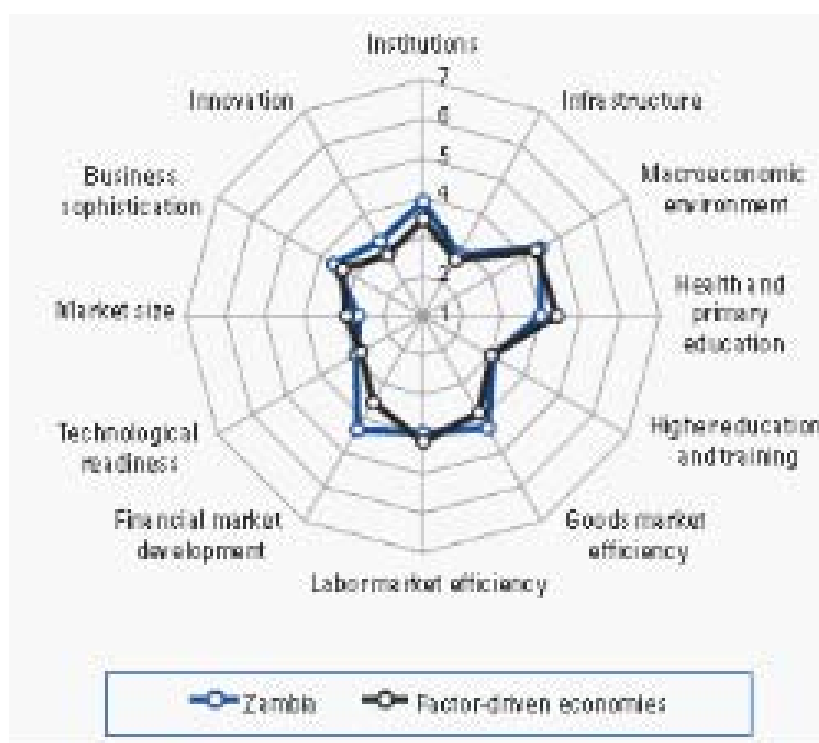
where and how to compete and how to position their companies. It also refers to their effectiveness in implementing their plans and their efficiency in managing their operations, in particular the aspects of increased productivity and efficiency are important

To achieve competitiveness, effort must be devoted to all three of the key competitiveness components. Based on the definition WEF has developed a method of measurement called the 'Global Competitiveness Index (GCI)', it is a composite encompassing 12 pillars of competitiveness aspects where the scoring is based on interviews with government and business managers. It has been calculated annually since 2005 to an increasing group of countries now counting 142.

The GCI pillars are used to group countries according to three stages of development and identify the key drivers that may cause the graduation of a country to a more advanced stage. Zambia belongs to the factor-driven group of economies that competes based on factor endowments—primarily unskilled labor and natural resources (such as water bodies and fish). Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. Maintaining competitiveness at this stage of development hinges primarily on well-functioning public and private institutions (pillar 1), a well-developed infrastructure (pillar 2), a stable macroeconomic environment (pillar 3), and a healthy workforce that has received at least a basic education (pillar 4).

The graphics below (from GCR 2011-2012) demonstrate how well Zambia does (the blue line) compared to the average for the stage of development that they belong to (the black line). If the blue line is outside the black, the indication is that the country fares better than the group average. It is seen that the closer the lines gets to the perimeter the more advanced the economy. Zambia fares generally above the group average indicating an improved competitiveness.

Figure 1 Competiveness estimate - GCI spider webs for four TRD countries



Source: GCR, WEF, country pages

The GCI is also used to rank the countries from 1 to 142. Table 2 below indicates the present and earlier ranking of Zimbabwe. In terms of rank it is safe to say that Zimbabwe continues to indicate improvements by moving gradually up the ladder.

The indication is that the country is moving generally in the right direction by the establishment of a still improved framework for increased competitiveness and productivity of the economy.

Table 2: GCI Ranking and GDP per capita

Country	Group	Rank 2011-12 (142 countries)	Rank 2010-11 (139 countries)	2009-2010 (133 countries)	GDP 2010 (per capita, current USD)
Zambia	Factor driven	113	115	112	1,221

The above brief analysis of GCI is for all economic sectors. Some factors are of more importance than others for the competitiveness of the fisheries sector and fish product value chain, in particular when it comes to the framework conditions for the SME segment. Some of these aspects are described below.

Macroeconomic environment

The new regime in Zambia has taken on the burden of transforming a formally centralized economy into a more open market oriented one. The process is lengthy and the work has been commenced by the drafting of new legislation and regulatory framework. Though the parliamentary deliberations are fairly new, the government has

pushed through reforms at the practical level making it possible for the business life to take initiatives. In terms of GDP per capita Zambia indicates also a reasonably fast increase.

As a fish eating country, and with a view to improve on self-sufficiency in supply and save foreign exchange, Government has liberalised the aquaculture sector and in fact encourage local entrepreneurs to take up aquaculture activities. It was found that a large group of investors now rush into the sector. However, provision of technical knowledge and guidance is still lacking behind, and access to funding is still complicated and expensive.

Institutions – Competent Authority and SPS

Development of the institutional set-up is significant for fisheries competitiveness. The TAS identified food safety issues to be a key constraint for developing trade in fish products both internationally and regionally. It further indicated the requirements both at institutional level and for the private companies to produce and deliver safe SPS compliant products. Respecting the basic principles of WTO is a must:

- Most Favoured Nation principle – no discrimination of other nations
- National Treatment Principle - means treating foreign and local products equally.

The need for Zambia to comply with the SPS requirements is important although the country does mostly trade in products that are based on imports and processed locally. Compliance is a must for exporters also targeting regional markets. National laws and regulations have to reflect clearly the WTO principles and agreements. These must be applied equally to products from all trading partners when supplying to the regional and local markets. Thus the key institution that needs to be in place to allow regional trade in fish products is an approved Competent Authority (CA) and access to an accredited laboratory (public or private). The companies met did indicate knowledge about the SPS agreement, and some were authorised by the CA.

Zambia has an approved CA, but the extent of the mandate, and the level of staffing both in qualification and quantity is a limitation. In addition there is a marked difference in the progress of law making and up-dating of regulations. The main concern remains the level of implementation, which was found low.

Since the incumbent administration took office in 2011, Zambia has made progressive steps towards liberalisation of economic sectors. For fisheries and aquaculture liberalisation has meant a direct encouragement to increase local investment into tilapia aquaculture, with view to build national capacity in this area and reduce dependency on fish imports. The Department of Veterinary Services, the Ministry of Agriculture, is the CA. A regulation was drafted a few years back and has been put in operation, it was found adequate.

The organisation of the CA has local outreach covering Zambia; however, most pertinent issues are handled at central level. It is an expressed concern that the regional offices are not staffed with food technologists or veterinarians that have expertise with food safety aspects in fish production or fish products. Even inspection on imports at the borders posts is done by non-fish expertise; in this context note that Zambia is the major regional fish importing country. The laboratory capacity to support the SPS related work is insufficient.

A new plan for aquaculture development is in the making but not yet in draft form.

SME Support Institutions

In particular the SME segment needs considerable attention for it to become a dynamic take-off-for-growth platform in Zambia, and to participate and augment regional trade in fish products. Zambia has defined a set-up of institutions/agencies that are mandated to cater for SME support in terms of training and provision of information. Such facilities are mostly on terms of general and financial management training/education and support.

Historic evidence shows that Zambia has not had a strong tradition regarding primary education, higher education and vocational training (Figure 1). However during the former administration a large number of Governmental and parastatal agencies were responsible to deliver services to business life. However, the mandates were not clear and budgets limited. A new central agency was created, Zambia Development Authority (ZDA). It is mandated to cater for business services and acts like an umbrella institution under which support to SME is grouped in departments or units covering:

- Training in general and financial management,
- Export promotion,
- Investment promotion,
- Programmes for the support and empowerment of SME women.

In addition ZDA will coordinate the rolling out of a nationwide network of financially sustainable SME incubation facilities. It could be an option to dedicate an incubator to fisheries/aquaculture operators

There is no particular programme under ZDA

¹⁰ See TAS, pages 47-50

for fisheries and aquaculture. Export promotion activities for that sector are not deemed relevant for the time being as Zambia is a major importer of fish products. Since the change of Government in 2011 more attention has been given to aquaculture development, and the Government is in the process of modernizing regulations and drafting action plans for the subsector. The Ministry of Commerce, Trade and Industry (MCTI) is responsible for the coordination of trade policy debate through a working group. There is membership from Zambia Chamber of Small Business Association, Zambia National Farmers Union, and the Zambia Federation of Women in Business Associations; however, none of these associations have activities related to fisheries/fish processing /trade. A newly created association in aquaculture is growing fast but is not a member of the working group yet.

It is a key problem that SME entrepreneurs have great difficulty in accessing credit finance (trust issues, collateral), and if successful the cost is high and devastating to competitiveness (18 - 45% interest, highest for local currency loans, and short repayment periods). The market of venture capital focuses on larger enterprises. However, a recent initiative, called Equity Capital Resources Plc. is registered under the Zambian Securities and Exchange Commission. It has strategic focus on SME enterprises, but requires a two year succession of healthy operation, and may well provide funding for companies when they graduate from the planned incubators.

Trade in fish product does not enjoy the benefits of STR as fish products are not on the Common Lists. The ICBT programme has been implemented at some border crossings since 2000. Zambia is a transit country for fish products destined for DRC including e.g. horse mackerel, and tilapia from China, the latter arrives via Namibia, and Tilapia from Zimbabwe. Most of these products are traded informally. Zambia has no institution that offers training in international trade matters, but relies on the well reputed 'TRAPCA' university in Arusha, Tanzania, where all trade topics are offered at different levels.

Other competitiveness issues

Regional raw material and processed products (e.g. based on Tilapia) face competition from extra-regional imported products that can replace the local product. The one obvious case is the import

of frozen tilapia from Asia (mostly China) into Zambia and to a lesser extent some other countries of the region. The imported tilapia varies only to a small extent from the local product in that it has leaner flesh, and comes in slightly different sizes compared to the local product. The local consumer prefers a fresh-on-ice product, but is willing to sacrifice taste if the price of the alternative product is substantially lower. This willingness is apparently decreasing due to availability of the higher rated local product.

The competing frozen product is sold at prices of USD 1.00 to 1.30 per kg in Zambia. The fresh-on-ice local product from Zimbabwe fetches USD 2.5 to 4.5 per kg. Thus there is a marked price differential. Since fish feed is the main cost component in farmed Tilapia the cost of production will depend largely on the feed cost. Part of the input to feed production is internationally traded such as fish meal and oils, particularly for starter feeds, and will cost approximately the same in Africa and Asia. Other ingredients such as soy meal, brans etc. are produced locally, where Africa will be less costly than Asia. Feed conversion ratios are important as it requires at best just 1.9 kg of feed in Africa to produce one kg of fish, whereas in Asia the feed conversion is probably only slightly less. Manpower costs depend on two aspects: the efficiency of the production system and the unit cost of labour. Unit cost of labour is less in Africa but efficiencies are likely to be higher in Asia, due to more intensive Asian production methods. Finally transport from Asia to Africa of final product adds an additional cost element to the Asian product. In sum the cost of production and getting the product to the consumer should be lower for the African product, a recent study indicates a cost price of USD 2.25 for African producers¹¹. It is therefore a bit of a mystery how Asian tilapia can be sold at a retail market in Zambia at USD 1 to 1.3 per kg of frozen round Tilapia. So part of the cost of production in Asia must be paid by covered or supported by other sources than the producer/producer.

Presently Asian Tilapia is competitive, due to the strange price relationships, in local and regional markets. However, with still improved local production methods and better formulation of feeds the conversion ratio may improve and the cost of local production of feed ingredients certainly will remain competitive, ESA countries have availability of land and cheaper labour. Over time the local tilapia will become also price-wise competitive.

¹¹ See: 'ADB Technical Review of Financial Projections -Zimbabwe: Lake Harvest Aquaculture Project'. Zimbabwe, Nov 2011. The producers are: National Milling and Tiger Foods of the Astral group

Other imported marine based raw material and final products are not considered replacement products, and hence do jeopardize competitiveness.

PRIVATE SECTOR AND TRADE READINESS

One main objective of the TRD study has been to identify the actual status regarding the use of a systemic approach to engage in regional trade for the private sector operators. The method chosen was based on an adapted standard TR Questionnaire (TRQ) applied in USA and Europe. The TRQ was adapted to the ESA conditions, in particular for SMEs, with a view to enhance regional trade participation for this segment that today trade only domestically. Following Zimbabwe Zambia was second to test the modified version of the TRQ when addressing the industry. For reasons of confidentiality, company references are made anonymous.

Zambia was selected as a fish eating country with high level of fish product import compared to local raw material based products. Only small quantities of final product are re-exported to other regional countries. Fisheries and aquaculture and downstream processing, marketing and trade activities of the fish product value chain appears to be fragmented where coherence in the fish product value chain is most marked for industries that base processing on imported raw material. Yet there is a concentration of raw material activities related to the larger lakes regarding wild tilapia fisheries and tilapia aquaculture. There is not any large scale producer in operations. However, one medium size aquaculture farm was represents a somewhat integrated system (see below); it is managed by Zimbabwean nationals.

A combination of both tradition and the earlier highly centralised regime resulted among other in lack of or a weak institutional framework for an aquaculture industry to grow. It is in many respects an infant industry where the level of private sector organisation the country lacks behind as well. The TRD did not identify a professional association for large scale producers. The alternative is to join ZCC, where there are no chapters for fisheries/aquaculture. For the small scale segment there is an association for tilapia aquaculture (FOAZ). It was recently established and is rather weak in structure, capacity and funding. However, the membership has grown rapidly and the Lusaka

City Council has allocated the association its own space in a large local open market area. There is a dire need to modernise and upgrade the infrastructures (access road, water supply and drainage, cold store facilities and telecommunication). The only other association found was an informal organisation of the tilapia and Kapenta fishers at Siavonga. In both cases the associations' administrators/managers did not have a clear picture of the important role as lobbyist and its potential influence on fish product trade policy. Otherwise for the there is no professional association. This lack of better equipped an integrated professional associations indicates lacunae at policy/institutional level as the voice of fisheries, aquaculture and product trade is not heard.

It is a key point to assess how deep and wide the companies are engaged in the value chain for fish products, in terms of their business activities carried out. There can be many links in this chain but to keep the assessment relevant to TR the following categories of business activities have been applied:

- Raw material producers (fishers and aquaculture operators)
- Key input suppliers as feed and feed ingredients for aquaculture
- Processing enterprises with different products (fresh on ice, filleting, canning, drying, salting, advanced products)
- Marketing/trading activities
- Logistics (includes storage and retail outlets for final products on site and in other regional countries, the ownership or leasing arrangements for transport refrigerated or not, distribution by bicycle and moped for SMEs)
- Professional associations and cooperatives
- Investment facilities and credit institutions form SME operators

For the four TRD countries total of 42 companies and private organisations were interviewed divided on four main groups: Large companies (15), SMEs

(13), profession associations and cooperatives (8) and Investment and credit facilities (6)¹². Table 3 below indicates the split along company economic size, where SME status equals a company with less than 30 employees. Since the wanted output is an assessment of the TR status the unit of analysis is the number of business activities that a given company participates in. Thus the table summarises results by the categories listed above, and thereby also allows a quick insight into the level of vertical integration of a given size company. These results cannot be used for generalised statements at national industry level as the number of cases is too small to allow quantitative analyses based on rules for statistical significance. The results are valid only for the companies and organisations interviewed and are used essentially for qualitative assessment.

The 42 companies and organisations display a total engagement into 96 business activities. If associations and investment credit facilities are disregarded the productive sector companies

interviewed engage on average in almost 3 business activities, large companies average engagement in more than 3 business activities, the SMEs average less than 3 activities. It can be said for SMEs that activities related to marketing/trade and logistics are, with a few exceptions, at quite rudimentary levels. They involve selling at the local market using bicycles and mopeds as means of transport with no particular gathering of market intelligence of marketing effort.

The team visited 8 companies in Zambia involved with either fisheries or aquaculture and a combination of the above identified business activities, 25 activities in total. This is on average a good result, and it was found that more businesses were engaged in some level of vertical integration. There is only company displaying participation in 4 business activities and 5 companies participated in 3 business activities. Thus the level of vertical integration is on average compared to other countries.

Table 3: Companies interviewed by economic size and business activity

Country/ Business activity	Mauritius	Uganda	Zambia	Zimbabwe	Total
Large company					47
Fisheries					0
Aquaculture		1		1	2
Feed	1	1	1	1	4
Fish processing	3	5	2	1	11
Trade regional	3	6	3	1	13
Logistics	4	6	4	1	15
Associations	1	1			2
SME					43
Fisheries	1		1	2	4
Aquaculture	1	1	3	2	7
Feed		1			1
Fish processing	3	2	3	2	10
Trade regional	1	2	1	1	5
Logistics	3	1	5	2	11
Associations	1	2	2	1	6
Investment/credit	2	1	1	2	6
Grand total	24	30	26	17	96

Source: GCR, WEF, country pages

¹² This categorisation is intended to be used in a subsequent larger enquiry to be carried out by disseminating the TRQ via email for a more detailed analysis for all SmartFish countries.

Large players

Interview results indicate that larger companies are more vertically integrated as expected. It reflects the importance of controlling input supplies in an economy that is import dependent and without supply chains. In the case of fisheries this is particularly true for fish feed and industrial level technology supplies, where virtually all technology is imported into Zambia. There is one fish feed mill producing ready mixes of own grow-out feed.

As an example one large company displays almost full vertical integration in that it covers most of the listed activities of the value chain: from aquaculture (hatchery, fingerlings and commercial fish grow out), processing, storage, logistics system including a fleet of trucks, retail outlets in Zambia countries and a dedicated marketing department. The company is engaged with regional trade based on own logistics. A high level of vertical integration indicates the importance assigned by management to regional marketing/trade aspects. This company has accepted TR as an important business and market development concept and also achieved it in practice.

Several of the large companies met were aware of the food safety requirements under the SPS agreement and do have CA approved prerequisite programmes (PRP) including a Hazard Analysis Critical Control Points (HACCP) plan on top. For the SMEs in Zambia there is no registered export, however, all enterprises met were not aware that even selling to local markets imposes food safety requirements and also asks the ability to produce documentation for such. Selling at factory gate leaves the buyer with exactly the same problem - without a CA approval the food items are de facto not deemed good for human consumptions (even if the quality of the sold products actually were found acceptable). In most cases there is still scope for improvement. The rationale for a high level of integration is the need to assure for example input supplies based on own manufacturing and hence also the ability to control and document quality.

The large enterprises are to a large extent owned by foreign capital and are almost fully vertically integrated. The advantage is that technical and managerial know-how and marketing/export experience is brought into operation, and also less costly foreign financing is available and is managed by skilled officers. In Zambia large enterprises were established this way and the transfer-of-technology is only now beginning to show as such elements of business operations

are considered of strategic importance. The companies even have invested in new production facilities to take advantage of its in-house know-how and adapted technology. The downside of foreign ownership fully or partially is that financial resources are exported as well, and if owners based abroad decide to close a company local jobs and knowledge will become idle.

The companies were acquainted with the TR as a concept. Since the companies are almost exclusively selling own or imported products in Zambia none of them had develop market strategies based on an increased participation in regional trade. Final products do reach as far as DRC, Angola and RSA; however border crossings of such exports are carried out mostly by middlemen traders.

As there is no professional association that has direct contacts tin government participation in trade policy debate is negligible. When exposed to the TRQ the main trade related concern expressed by the large players includes:

- How to get the product to the consumer in regional markets in good time and at reasonable cost

The obstacles include:

- General lack of market intelligence,
- The consumer's ability and willingness to pay for quality,
- Poor infrastructure
- High trade cost involved and limitations in trade facilitation.

The companies more the less assumes that market intelligence kind of business services is part of the mandate of public export promotion agencies. In Zambia this is the mandate of ZDA, so far there is no such activity carried out, also the ZCC is mandated to collect, and disseminated information but this is not done for fish products.

The constraint for the large companies is on the raw material supply side. It does explain the reluctance to engage in new development by restructuring part of the production capacity to meet preferences in the regional markets.

Consumer preferences in Zambia clearly points to Zimbabwean produced whole round fresh on ice (or frozen) tilapia over the imported Asian product. The TRD team witnessed at the company's retail outlet in Zambia an almost physical battle

between the buyers (fish mongers buying to resell elsewhere in Zambia, and house wives coming far distances).

SME Operators

The SME segment of operators interviewed is owned and managed almost exclusively by local groups/families. The availability of funding therefore has limitations and local access to credit is prohibitive in Zambia due to high interest rates, approval procedures and collateral requirements. Ownership often goes hand in hand with active involvement in daily management, where the company manager is also responsible for financial and marketing management. This mix of roles keeps the company in a certain fixed position from where graduation to a higher level of development is difficult, not least due to the fact that the owner/manager would have to decentralise decision making power over part of the company.

Vertical integration is limited to fewer business activities but is growing, normally involving production, local sales and simple logistics (bicycles and mopeds). A notable exception is tilapia aquaculture where an essentially trading company has initiated own aquaculture grow out farms but also buy on fish on contract growing base and directly at farm gate. It has an own processing and distribution system including a fleet of trucks, storage facilities, and delivers on exclusive basis to catering facilities on large still government owned facilities; but the company is not limited to trade in fish products its main activity is related to the agriculture side.

The perishable products from other fishery and aquaculture only undergo little and simple processing (drying, salting, smoking, fresh on ice). It is a common constraint in relation to regional trade; it was found particularly for the SME operators that the processing method limits the shelf life of the product. Transporting the product using bicycles and mopeds and in some cases pick-up trucks is a further constraint. Products can only reach markets within a certain perimeter depending on road and weather conditions. It is a must to find products of a longer durability and better means of transport.

There is ample scope for smaller companies to learn from larger integrated systems in the approach to management. A good case is in Zambian aquaculture where the control of the grow-out process is well documented for one medium sized company. Control involves a well-

designed lay-out of pond schemes in the optimal locations, cage design, and adaptation of feed to the local conditions, feed application, water flows, monitoring of the stock for disease, and good harvesting and post-harvest handling methods. Traditionally these aspects are not well understood by SME operators. Many SME operators have invested into aquaculture production because false rumours tell that profits are high and quick. Hence the tumbling of new unprepared SME operators, who enter a specialised production, into aquaculture production - failures have been abundant.

The presence of a 'star' company that can act as centre of excellence and guide the investors can save many resources for the investor as for the country. When exposed to the TRQ marketing planning and strategy were aspects of business that the SME had hardly thought about. In the present situation the production is easily sold at farm/factory gate. Also in this regard the 'star' company can assist SMEs.

It is not surmountable tasks to up-grade aquaculture grow-out or fishing/post-harvest handling techniques to meet basic food safety requirements and thereby produce regionally marketable products. With such improved and marketable products the marketing strategy can be expanded to capture regional markets. The limiting factors related to TR for SMEs include:

- Lack of formal managerial and production technology skills,
- Lack of dedicated/specialized training institutions on aquaculture
- Only superficial knowledge about quality assurance systems and SPS requirements,
- Limited knowledge on how to source financing,
- Expensive credit
- Very limited knowledge on trade regulations and border crossing procedures.

These factors were found at play in several cases by the TRD team. In fact when going through the draft TRQ most SME operators indicated very limited understanding of the concept and the underlying requirements to SPS (food safety issues), trade regulations and border procedures.

There is no targeted support from the Zambian government agencies designed to meet SME needs of the fish product value chain. SME development and trade promotion agencies should

develop courses on requirements to the STR and standard trade customs documentation. Otherwise training in SME fishery and aquaculture has been the domain of development partner programmes, which is particularly valid for the necessary knowledge on SPS requirements. The Zambian SMEs suffer from the same lack of access to market intelligence as do the large companies.

Only two associations were met and both focused on supporting members with formalities as registration of fishing or aquaculture activities and with reporting on landings and harvest. They act in other words only in the local context not nationally. Generally the associations were not aware of the necessity to contact government and become a voice in trade policy debate.

The ICBTA programme executed by COMESA does a commendable job in the process of establishing SME border traders' associations, but there is no specific training of traders in fish product issues. The latter group however has good use of the training in general and simplified (STR based) border procedures. The TRD team informed association representatives about the potential roles that an association can have in trade policy debate, and the importance that this has for the members.

KEY ISSUES AND POINTERS (RECOMMENDATIONS)

Through discussions with TRD stakeholders, findings of major recent studies and programmes, and own observations mentioned in the report text, a number of key issues were identified. These are presented below together with initiatives that the national authorities and private sector operators and their associations can use, when further developing the trade enabling environment. Note that the term 'pointers' rather than 'recommendations' is used, as issues found in four TRD countries have to be considered. Conditions do vary substantially between the countries; hence, more detailed pointers/recommendations are only applicable at national level. The main recommendation is therefore dedicated to the private sector operators in terms of the Trade Readiness self-assessment tool: the Trade Readiness Questionnaire (TRQ), which has been adapted to the SME level of business in the fish product value chain. TRQ is presented in Annex 1 to Volume I: Main Text. It is not attached to the individual country reports. However, it can be lifted off the TRD for actual use (it is not repeated in the list below):

Issue 1: Informal trade and border procedures

Fisheries and aquaculture are artisanal and at infant industry level since former administration did pay much attention to the sector despite the fact that Zambia is a fish-eating nation. The present administration has granted priority to the sector and had already taken steps to liberalise it. New investment has resulted on operating activities that are however only little organised. Participation in intra-regional trade for Zambia therefore remains mostly in terms of imports, as the demand gap is substantial, however also re-exports are carried out. Expect for some of the tilapia trade with Zimbabwe most trade is informal. Thus much more intra-regional trade than what is officially recorded exists. Informal trade means that the border crossing of fish products take place in small non-dutiable quantities and cannot be recorded in statistics under the existing reporting systems. Informal trade practices provide a somewhat diffuse and even confusing picture to the national authorities when trying to analyse statistical

trade data for planning and policy development purposes.

Pointer 1: *Informal trade lead to insufficient information and statistics on intra-regional fish trade in volume and value and by different product types. The value-chain and actual extent of the informal trade should be resolved by committing the national authorities to practise and promote:*

- *Zambian re-enforcement of the COMESA CBT programme to increase the number ICBTAs, to train more TIDOs, and to ensure that the ICBTA members are that are trained in and practice STR;*
- *Enhance the Customs Department's, ZRA, capacity to collect systematic data by providing training in collection method and the establishment of an electronic means of transfer which is then needed for policy and planning purposes.*
- *Practise of firm statistical collection and reporting by the TIDs locally and centrally;*
- *A regional fish trade information and database system should be established at the level of the Agriculture Department, COMESA, to be more detailed than the COMTRADE, to reflect product trade. The data collection points should be clearly identified and mandated and with transfer of operating knowledge via information, communication and outreach programs.*

Issue 2: In adequate capacity for SPS control in border areas

Zambia has an approved CA. Though the is some level of outreach via the extension service insufficient institutional capacity and shortage of human resources with appropriate training, and limited funding are important issues. This was identified as a key problem for SMEs; in particular the outreach to SME operators is missing or weak. The result is that Zambia does not practice full implementation of the SPS agreement which also applies to intra-regional and domestic trade. It follows that fish control and inspection is inadequate and the fish products for human

consumption may not qualify as safe to eat. In fact the local trader and operator also violates the SPS related commitments as there clearly is no documentation for traceability, which in one element of the Pre Requisite Programmes (PRP).

Pointer 2: *It is important that template guidelines, protocols, PRP manuals, HACCP plans and their means of verification are standardised, harmonised and designated/gazetted and is made available at all local points of extension service and border crossing. Qualified staff should be present at these points to deliver inspection services and training to the particularly the SME operators. This may lead towards compliance with the SPS agreement for fish products that are traded mostly intra-regionally (smoked, sundried, salted products, chilled and even some frozen products):*

- *Standards equal to the SPS and Codex Alimentarius or otherwise relevant ISO standards for capture fisheries and aquaculture should developed and be promoted to operators, and templates for PRP and HACCP plan should established and disseminated to the local points of extension service and border point inspection unit;*
- *Extension service (and also CA) staff should be trained in how to adapt the templates to the local production lines and aquaculture operatorions;*
- *The professional associations, FOAZ, ZCC, should be informed about the SPS requirements and the templates, including traceability, in an easy to understand form and be able to disseminate these to their members;*
- *Build capacity with the CA in particular in the border areas, so that inspection and control is done by adequately trained staff.*

Issue 3: High cost of trade due to poor trade facilitation

Trade facilitation is an issue as regards implementation of the commitments under existing FTAs signed by REC members, in particular for COMESA countries, where a general template for a Customs Union exists. As a result of poor trade facilitation, transaction costs for fish products are very high in continental Africa, partially due to the poor quality of physical infrastructure, but also as a result of border crossing procedures SPS, and other issues around formality. The latter may involve up to four days of waiting for a truck to pass. However, part of this issue is addressed by the large scale programmes under the Tripartite region's and COMESA's leadership.

Pointer 3: *Political will and good governance, exercised by the participating members of COMESA and the Tripartite negotiation process for a region-wide FTA, is a key element to its success. It is therefore important that the fishery sector is not marginalized in the deliberations at national, regional or international level and that Trade Readiness is enhanced. To hear the voice of particularly SME in fisheries as regards Trade Readiness the following should be done:*

- *Train FOAZ association members in STR requirements and procedures;*
- *Establish or equip existing professional associations with mandates to disseminate and promote participation in fish trade policy debate also as regards trade readiness;*
- *Mobilization of the existing SME operator association, and potentially new ones to be formed, in the fish products value chain to form discussion fora locally as a 'cluster' and help define the key actions required to enhance trade readiness;*
- *Capacity building of regional traders and processors associations/organisations in areas such as STR based border procedures, self-policing, and how to access financing.*

Issue 4: Poor market intelligence trade promotion

Equal to large and SME operators is the need for access to up-dated market intelligence on regional markets. This encompasses understanding dynamics in consumer preferences for product types, presentation and taste, and regarding changes in price levels for the different fish products. Also information on changes in supply and prices of input to aquaculture as fingerlings and feed are missing. Thus the industry is deprived of key information upon which to base or adapt their market strategy. In some countries the gathering of market intelligence is mandated to public sector agencies, but there are actually no such activities going on.

Pointer 4: *Missing market intelligence can lead to arbitrary and wrong market strategies at company level. In a historic situation, where the demand for fish products is growing regionally, combined with a slow increase in purchasing power, this is not only missing an opportunity - it can be devastating to the industry and hence cause a misuse of scarce national resource wealth. If the products made are not known outside the national border regional trade in such products will be slowed down. The following should be done:*

- *Gazette regulations that clearly identifies the agency responsible for market intelligence gathering, dissemination and trade promotion (this should be the trade promotion unit of ZDA);*
 - *Develop standards for information typology and communication flows to ensure the market information is structured and harmonised;*
 - *Train ZDA staff in how to carry systematic market intelligence searches for fish products and input supply on the above basis;*
 - *Organise regional sessions with similar agencies from neighbouring countries to participate with a view to establish common grounds, harmonised and standardised information flows and to build a network;*
 - *Analyse the need for fish product trade promotion activities particularly designed for the SME level. This can be in terms of arranging trade events, exhibitions, fairs, support the SMEs financially to secure participation within the country;*
 - *Create awareness about the support programmes using, radio, TV, mobile phones and printed matter (ZDA to lead);*
 - *Engage the professional association as vehicle both for communication and for the promotion of new government initiatives relevant to the sector and trade.*
- *of local and border area market place facilities with a view to create solutions that are justifiable also economically;*
 - *Promote further investment in aquaculture and/or processing in land based on the application of 'good practices', including development and dissemination of and dedicated Aquaculture Investor's Guideline to avoid poorly prepared investors entering the area;*
 - *Promote the concept of healthy production techniques and innovation through the establishment of a dedicated Fisheries and Aquaculture Incubator (probably to be located on lake Kariba and/or other natural centres near important water bodies, ZDA and local authorities and associations the be involved) to encourage the development improved aquaculture and fish processing & value-addition with better durability and/or new products, eco-labelling, make bilateral agreements e.g. with DR Congo;*
 - *Create awareness and sensitize stakeholders on regional fish trade via meetings, workshops, printed and electronic media.*

Issue 5: Market adaptation and product development

As an importing country it must be a priority to increase the domestic markets for locally made products, otherwise local consumers are deprived from the use of white protein from fish as a supplement to food security. Part of this issue is related to inadequate local market infrastructure in terms of lacking or poorly equipped collection centres, distribution facilities, receiving centres, and retail markets. Such facilities a very few in Zambia and are not regularly inspected by the CA, which is also the case at border crossings posts, making the products from these facilities non-compliant to the SPS requirements, and hence non-tradable.

Pointer 5: *The substance matter of this issue requires both increased awareness and investment to improve the situation. It is therefore advised that the national authorities should:*

- *Identify best practice in fish drying or other processing techniques and apply these methods via training programmes;*
- *Identify best practices for the design*

ANNEX 5.3 – UGANDA

Participation in Regional Trade and Markets

Intra-regional trade in fish products has played a fairly small role for Uganda despite the fact export of fish products is a long tradition. During the visit to Uganda the TRD learned that the export of almost exclusively of Nile perch fillet to EU Market was a solid business, and that this product would be too expensive for the local and regional markets.

What have been traded regionally in recent years are other products based on Nile perch such whole round froze and fresh on ice fish. Direction of trade is bound for DRC and South Sudan. Also the frames resulting from filleting are transported to the borders and sold across. Other products regionally traded include whole round and tilapia, smoked tilapia, catfish and salted/dried mukene.

There are clear indications that some large players seriously consider the regional markets to display growth potential at a commercially viable level. A change in attitude towards these regional markets would benefit the sector economy and regional food security. Uganda has one of the most diversified fishery sectors in Sub-Saharan Africa and is able to deliver a fairly wide range of products for regional trade:

- Nile perch, whole round frozen or fresh on ice
- Tilapia, either whole round on ice or whole frozen, smoked, dried;
- Catfish, either whole round on ice, fillets, smoked, dried or as fish mince sausage
- Mukene, lightly salted and sundried, silage;
- Fish feed, as the agriculture sector can deliver a large share of input towards a feed mix

There is a lack of suitable market infrastructure for the sale of fish products. Existing local market infrastructure needs up-grading and cannot meet SPS requirements. Tilapia based products, Nile perch frames, catfish products, and Mukene are the main products traded locally. Fresh on ice whole round and frozen gutted tilapia constitute increasingly important volumes in this trade.

Nile Perch Products

Some processing industries have similar considerations and in fact have carried out small scale regional trade. Most of these are medium to large size processors of fresh on ice and frozen Nile Perch. The main markets are DRC, Rwanda and South Sudan. Volumes and prices are not known, but the players interviewed indicate that product can reach as far as Kinshasa and still remain competitive. Most trade from the processors are going via Rwanda where a local or Congolese trader buy the products and handles the rest of the trade route.

Other Nile perch based products include the frames left from filleting, this product is transported on pick-up trucks, or bicycles, without refrigeration and only covered by tarpaulins for up to 8 hours – it is not safe as human food. However, local tradition and myth explains that meat sitting directly on the bone is most powerful (read has the quality).

This situation is in the process of changing as the fishing pressure on the Nile perch stock is growing. Similar fisheries by other riparian countries levy additional stock pressure. The industry has realised that sustainability could become a serious issue and has introduced own measures for size control in cooperation with Government agencies. The main threat therefore to this fishery is presently the many newcomers that start fishing on an artisanal scale, where control of landed sizes is much more complicated and not carried out on regular basis. Fish caught this way are sold in many cases undersized to SME traders who also sell across border.

Tilapia Products

Tilapia fishery is practised on lakes Victoria and Albert and in the rivers. The catch is mostly marketed locally and in city centres/towns of Uganda. There is a small but growing regional trade in these products as well with DRC South Sudan and Kenya.

Only one enterprise of substance has taken up production of tilapia aquaculture on Lake Victoria.

However, a large group of SME operators do practise tilapia and catfish aquaculture in other waterways. Most of the harvest is sold locally but small quantities are traded regionally following simple processing method. There is one feed mill producing feed mixes, but not yet for fisheries. One aquaculture producers also mixes own feed needs.

In recent years small scale trade with regional countries have been initiated, and there are clear indications that some players seriously consider these markets to display growth potential at a commercially viable level.

There is no large scale producer, but one medium sized cage based farm has initiated regular supply to Kampala and sell the produce at local market places. The logistics system needs to up-graded. Otherwise a large number of small farmers practise earth pond based grow-out mostly of tilapia. Final product is marketed at local market places or via supermarkets.

The Ugandan market has recently shown strong demand also for fresh whole round fish, which is produced at lower cost than frozen products. Such products are marketed in the region, mostly in; Zimbabwe, Zambia, South Africa, and Mozambique. Even markets in Namibia and Angola are actively trading tilapia. The limiting factor to rapid growth in this trade is the scarcity of cold chains and poor infrastructure. Limitations push the unit costs up.

Whole frozen tilapia has already gained foothold. However supply is short of demand. Volume deficits and price ranges in these regional markets are presented in table 1 below. Zambia and DR

Table 1: Prices and demand gap for tilapia in some countries

Country	Indicative Retail Price range per kg whole gutted fresh/frozen tilapia	Approx. current shortfall per annum (tonnes)
Namibia	US\$3.00 – 4.50	>5,000
South Africa	US\$4.50 – 5.50	>10,000
Botswana	US\$4.50 – 6.00	>5,000
Mozambique	US\$4.00 – 4.50	>10,000
Angola	US\$7.00 – 9.00	>10,000
Zimbabwe	US\$3.00 – 4.00	>7,500
Zambia	US\$2.50 – 5.00	>20,000
Malawi	US\$2.50 - 4.00	>10,000
DRC	US\$2.00 – 2.50	>20,000

Source: INFOSA in collaboration with National Liaison Officers in the SADC Member states mentioned, updated 2010. Note that these are conservative figures.

¹³ conducted by INFOSA and followed up by the TRD Team in 2011

Congo are the main markets with combined supply shortage of some 40,000 tonnes in 2010.

Supply is short of demand. Volume deficits and price ranges in these regional markets are presented in table 1 below, based on a study¹³. The study shows that there is a gap of 97,500 mt per year and thus ample scope for production and trade. The main regional market is Zambia where strong demand is indicated also for fresh whole round fish, which is produced at lower cost. Other regional countries as Mozambique, RSA, Zambia, South Africa, and markets in Angola, DRC, Namibia, are also actively trading Tilapia. The limiting factor to rapid growth in this trade is the scarcity of production capacity, cold chains and infrastructure related issues, limitations push the unit costs up.

Imports of frozen whole tilapia from Asia into the region have been the main supply source for some time. These products sell at prices of USD 1.25/kg or well below the local production cost. An advantage for local aquaculture is that local producers are in a better position to make product adaptation to the local consumers' taste. In Zambia the team was informed that fresh on ice tilapia from Zimbabwe is preferred over the frozen imported products, mostly as the sizes of the fish and the taste are a better match. The team also witnessed the arrival of a new shipment of Zimbabwean tilapia that was sold very quickly in a virtual fight between local trading women and housewives. Despite the price of the product was close to twice that of the Chinese frozen product (an estimate of sub-regional market sizes and prices are presented in the Table below).

Prices vary for a number of reasons; in major towns and cities prices tend to be higher. In some cases, farmed fish has been noted to attract higher prices than wild fish. It is noted that prices are very high in Angola and in some markets in the DRC, but the cost of distribution can also be high.

Catfish

Catfish is mostly farmed in earth ponds. The final products are either whole round on ice, fillets, smoked, or dried. These products are marketed locally, though there have been attempts at trading with South Sudan, Rwanda and DRC. The main obstacle is lack of transport as the value chain for catfish product is not yet developed.

A new product based on catfish mince has been launched recently. The product is in form of a sausage. It is developed by a local entrepreneur, who is also working for the cooperative structure, in cooperation with the Uganda Industrial Research Institute (UIRI). The sausage is still produced at the UIRI facility acting as an incubator.

The meat processing unit at the UIRI facility crams meat, poultry and fish processing into a few shared rooms, where cross contamination is unavoidable. The UIRI facility would need to be up-graded fundamentally to meet food safety standards.

Commercial production of the sausage is planned, but a number of obstacles have to be mitigated to balance cost and price relationships such as finding suitable land or a ready building, processing technology, and financing. The end product is today a frozen sausage, which when thawed has a good consistence and taste. The volume of production is small, and the final product is frozen and it is therefore only marketed locally via supermarkets and the catering industry as high end restaurants. When the product in its present form was introduced and the SmartFish Trade Event in Lusaka, April 2012, the reception was overwhelmingly positive.

Further research into other value added methods to reduce dependency on cold chain distribution should be carried out, for instance smoked sausage should be attempted alongside the frozen product. This way the product may also find easier inlets into the regional markets - a lift for the catfish aquaculture with likely important socio-economic benefits.

Mukene products

Mukene fishery is an important socio-economic activity where the produce is processed on the beach and is traded via fish mongers (women) to

nearby markets and cities and towns. Part of the dried product is sold to regional traders who take it across the borders.

The small pelagic species is in Uganda fished by small boats making their catch over deeper waters, which is considered a sustainable fishery. Beach netting is also practiced and this may have a detrimental effect on the stocks as juveniles are taken as well. The fishery is self-regulated by the Beach Management Organisations ((BMO). The quality of the final product depends both on how the catch is made and on the post-harvest handling and processing method applied. Whereas catching method by boat may result in a healthy catch if flake ice is applied, beach netting does not use any particular post-harvest treatment. Drying takes place on the beach sand of on (mostly) uncovered racks. The product is exposed to weather condition, birds and rodents, and post-harvest losses are up to 70% in the wet periods. The quality is poorer than the Zimbabwean kapenta dried on covered and guarded racks. The final product is marketed locally and also traded regionally.

Feed

There is one producer of animal feed mixes outside Kampala. The line for fish feed is still used only for small batches. The product is sold to the various groups of aquaculture farmers locally as the feed mill has its own logistics system.

Formal and informal trade

Regional trade is formal as concerns the trade in whole Nile perch products and some tilapia products, such trade is done by large players. Medium and small scale tilapia, catfish and mukene producers trade only locally or sell to local traders or traders representing the importing country. Through resale operations of marine based species Ugandan products can reach DRC, South Sudan and Rwanda. Most if not all of this regional trade is on an informal basis. It is difficult to verify informal trade as the producers and even distributors sell at farm or company gates. The buyer, who can be any nationality in the border areas, collects the produce and may resell it, transfer it to whole sale markets in Uganda, or take it directly to the border.

Informal trade in Nile perch or tilapia products involves the transport of full or partial truck-loads of fish product arriving at the border. The trading company, which is always registered formally, would have to follow rules and pay the customs duties, which is both a time consuming procedure

and has a cost tag. Instead the trading company may compartmentalise the load into small non-dutiable parcels, and pay bicycling traders to carry the goods across informally. In some cases the product is just transported across the border as part of the truck load itself in disguise (or hidden) among other kinds of agricultural produce or commercial products, which in effect is smuggling. Fines are to be rarely paid.

Border crossings for other fish products is on informal trade basis, and it not is not known in great detail, but repacking into smaller parcels that are duty free and then transported across the border on bicycle is one way. To improve and formalise this trade an initiative was taken by Zambia in 1997 to form a regional Cross Border Trader Association (CBTA). Through the REFORM programme executed with assistance from COMESA and ITC, Uganda became partner to the programme in 2009 and is now struggling to organise CBTAs, and at the same time to build new and vastly improved market places in the border crossing areas. These market places do comply with the SPS requirements.

According to COMESA it is a common problem that CBTAs do not seem to offer the needed services to its members. For Zambia this affects mostly women as majority of its members are women (70%). The association has been instrumental in implementation of STR, and brokering of several deals with financial institutions and government. There has been some level of success in applying the Simplified Trade regime (STR) to fish trade. The STR is basically a simplified trading/customs procedure which has been tailor made for small consignments (of USD 500 or less) in order to allow its users benefit from the Free Trade Arrangement of COMESA.

Under the REFORM programme and with the aim to formalise trade COMESA supported the CBTA programme by capacity building and putting in place technical assistance via the Trade Information Desk Officer (TIDO). CBTA is now present in Uganda and also Zimbabwe, Zambia, and Malawi. It is in operation at on selected Ugandan border crossings. The initial result was positive. The ability to legalise trade by just having to register with the CBTA, fill in simplified customs documents, a simple certificate of origin done on the spot, and a health certificate also issued on the spot with the aid of a TIDO and at a low cost compared to standard formal trade conditions, was found attractive. Informal traders became aware of the programme advantages and used the facility when crossing the borders.

Uganda has not yet started capturing the STR trade through their automated system of customs data administration, ASYCUDA plus (ASYCUDA World soon to be implemented), and it is assumed that until captured it is difficult to quantify the changes attributable from STR implementation. Electronic transfer of trade data is possible, but it takes place using CD rom as a media, as telecom infrastructure does not yet allow direct transfer. TIDOs were placed at the border to help out traders in filling out STR forms and also try to record the trade (type of product, quantities and value) on a daily basis. This information is still in an unprocessed form.

Initially the consignments registered averaged USD 20 per crossing, for fish products the average is higher. For the trader to formalise a duty of say USD 5 per consignment can be devastating for business. The conditions offered, compared to informal trade, are above the capability of the trader and is also involves a time factor. So a large number of traders have fallen back to earlier practices. A Rapid Assessment of the CBTA and STR facilities was conducted in 2011. Among the main findings were:

- If duties are lifted for STR goods then other taxes and several documents have to be completed
- Too little effort regarding sensitization of the traders to the STR programme,

Recommendations on how to remedy the situation and increase usage include:

- STR ceiling to be increased to USD 1,000 per consignment
- Remove the processing fee on STR commodities
- Common Lists to be revised regularly
- Only one trade document for STR goods
- Include STR for all tripartite member countries under one grand FTA

The debate is now on how to provide incentives that will promote the idea of formalisation - that is how to reduce the informal trader's cost and time spent at the border. A second obstacle is that the STR protocol involves bilaterally agreed lists, Common Lists, of products that qualify for STR based trade. Thus the COMESA FTA is bent on this point. Unfortunately fish products are rare guests on these lists and hence will still face customs' duties albeit low, hence a disincentive to formalisation.

It is the ambition of COMESA to formalise trade that today is not registered. Registration would provide more precise information on resource use, and also secure the Governments higher level tax revenue as most fish products are not allowed on the bilateral common lists. In particular, for fish products that can play a strategic role in food regional security formalisation has priority. The existing formal trade in fish products is described below by main raw material base.

Competitiveness

Competitiveness of the Ugandan produced Nile perch, tilapia, catfish and Mukene products is demonstrated by the product's ability to meet the test of free export markets while expanding real income. The competitiveness of a locally produced fish products also depends on availability of imported similar raw material which could be used as a substitute in the local market.

The parameters that constitute the competitiveness framework for the national industry were identified in the Main Text. The role of the government is to generate an effective platform for competitive enterprises. Government reforms alone are a necessary but not sufficient cause, as has been demonstrated by many countries which have undergone structural adjustment reforms but have not achieved rapid and sustained growth. Competitiveness is not about the ability of governments or donor agencies to pick winners and losers at the industry or company level. This has been shown to be extremely difficult and for every success story there are other examples of failure and great waste. However, government does have an important role to play in facilitating investment in capital, investment in human resources, the freeing up of untapped resources, strengthening the efficiency of market forces and the ability of entrepreneurs to translate their visions into reality. Growth in productivity is driven by many factors that can be grouped under three major headings:

- Macroeconomic conditions include favourable policy at fiscal, monetary, open trade regime, and other broad and overarching levels that are a necessary but not sufficient cause for growth in production and trade.
- Microeconomic conditions refer to such elements as tax codes, infrastructure, utilities, regulation, education, administration, and many other factors influenced by both the private and public

sectors that affect the day-to-day ability of businesses to compete. This also includes support via export and investment promotion and collation and dissemination of market intelligence.

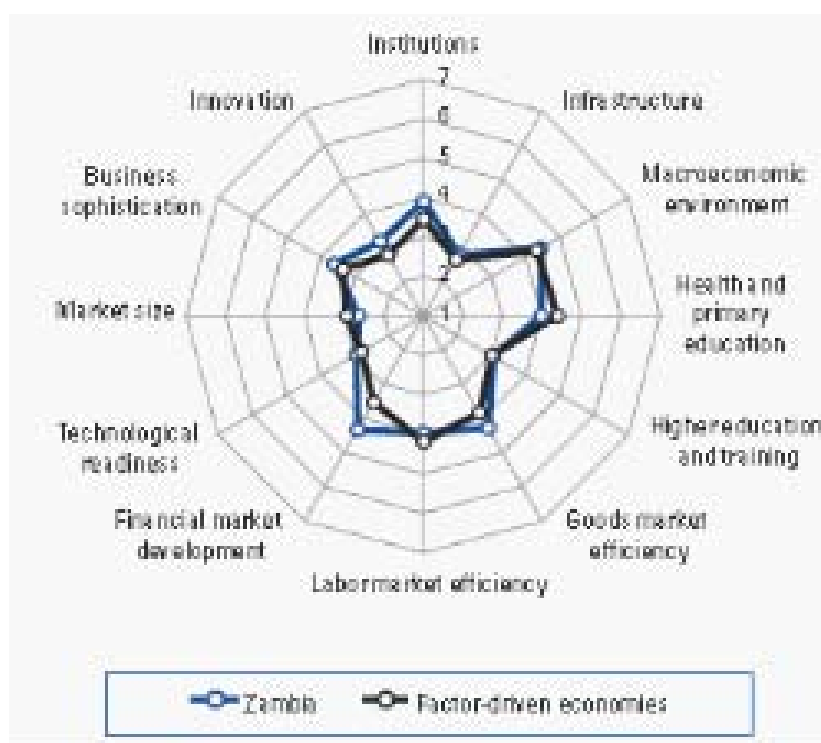
- Quality of business strategy refers to the choices business leaders make about where and how to compete and how to position their companies. It also refers to their effectiveness in implementing their plans and their efficiency in managing their operations, in particular the aspects of increased productivity and efficiency are important

To achieve competitiveness, effort must be devoted to all three of the key competitiveness components. Based on the definition WEF has developed a method of measurement called the 'Global Competitiveness Index (GCI)', it is a composite encompassing 12 pillars of competitiveness aspects where the scoring is based on interviews with government and business managers. It has been calculated annually since 2005 to an increasing group of countries now counting 142.

The GCI pillars are used to group countries according to three stages of development and identify the key drivers that may cause the graduation of a country to a more advanced stage. Uganda belongs to the factor-driven group of economies that competes based on factor endowments—primarily unskilled labour and natural resources (such as water bodies and fish). Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. Maintaining competitiveness at this stage of development hinges primarily on well-functioning public and private institutions (pillar 1), a well-developed infrastructure (pillar 2), a stable macroeconomic environment (pillar 3), and a healthy workforce that has received at least a basic education (pillar 4).

The graphics below (from GCR 2011-2012) demonstrate how well Uganda does (the blue line) compared to the average for the stage of development that they belong to (the black line). If the blue line is outside the black, the indication is that the country fares better than the group average. It is seen that the closer the lines gets to the perimeter the more advanced the economy. Uganda fares generally above the group average indicating an improved competitiveness.

Figure 1 Competiveness estimate - GCI spider webs for four TRD countries



Source: GCR, WEF, country pages

The GCI is also used to rank the countries from 1 to 142. Table 2 below indicates the present and earlier ranking of Uganda. In terms of rank it is safe to say that Uganda tends to stay at the same level indicating little improvement. The indication

is that Uganda is moving relatively slow in the right direction by the establishment of a still improved framework for increased competitiveness and productivity of the economy.

Table 2: GCI Ranking and GDP per capita

Country	Group	Rank 2011-12 (142 countries)	Rank 2010-11 (139 countries)	2009-2010 (133 countries)	GDP 2010 (per capita, current USD)
Uganda	Factor driven	121	118	108	501

The above brief analysis of GCI is for all economic sectors. Some factors are of more importance than others for the competitiveness of the fisheries sector and fish product value chain, in particular when it comes to the framework conditions for the SME segment. Some of these aspects are described below.

Macroeconomic environment

Though being the poorest of the four TRD countries in terms of GDP per capita Uganda is in a better situation, as the Government has liberalized many of the economic sectors. Demand and supply therefore determine prices in the market, and directly encourages the businesses

to improve on efficiencies and productivity. Government has put in place a set of laws and regulations and is in the process of modernizing these in particular a new Fisheries Act is expected to be promulgated in 2013. The macroeconomic framework has improved considerably over time; revenue is sourced from several places as company profit taxation, personal income tax, customs duties, licenses etc. There are however still problems with implementation and enforcement.

As a fish eating country, and with a view to improve on self-sufficiency in supply and save foreign

exchange, The Government is actively promoting investment into aquaculture. It was found that a large group of investors now rush into the sector. However, provision of technical knowledge and guidance is still lacking behind, and access to funding is still complicated and expensive.

Institutions – Competent Authority and SPS

Development of the institutional set-up is significant for fisheries competitiveness. The TAS identified food safety issues to be a key constraint for developing trade in fish products both internationally and regionally. It further indicated the requirements both at institutional level and for the private companies¹⁴ to produce and deliver safe SPS compliant products. Respecting the basic principles of WTO is a must:

- Most Favoured Nation principle – no discrimination of other nations
- National Treatment Principle - means treating foreign and local products equally.

The need to comply with the SPS requirements is essential for Uganda as the country mostly trades in products that are based on own produced raw material. Traceability and other pre-requisite programmes (RPR) have to be applied from catch/aquaculture production and harvest through to delivery of the final processed product. Compliance is a must for exporters also targeting regional markets. National laws and regulations have to reflect clearly the WTO principles and agreements. These must be applied equally to products from all trading partners when supplying to the regional and local markets. Thus the key institution that needs to be in place to allow regional trade in fish products is an approved Competent Authority (CA) and access to an accredited laboratory (public or private). The companies met did indicate knowledge about the SPS agreement, and some were authorised by the CA.

Uganda has an approved CA. Due to the long history of exports the mandate and staffing situation is satisfactory. The regulatory framework is being up-dated. The main concern remains the level of implementation, which was found to be satisfactory as regards the large factories but had limitations regarding SME enterprises and fishers.

Uganda, as the other Lake Victoria riparian countries, has a long tradition for the export of Nile perch fillets to EU markets. The institutional set-up is adequate and a functioning CA is in place

within the Ministry of Agriculture, Agro-Industry and Forestry (MAAIF). The CA is approved to issue health certificates. The staff at head-quarters includes 10 food scientists some of which have fish product relevant training. At district level there are inspectors performing vessels inspections and also do inspect landing sites. For the Nile perch industry this has been made simple as independent small fishers land on an island where factory buyers do the trading. Thus facilities are deemed compliant.

There is solid expertise at district level in SPS related matters for the fish products. In this context the public laboratory was deemed to have limitations in capacity even for basic analyses it could need an up-grade in capacity and to perform a larger range of analyses. Meanwhile many of the Nile Perch exporting companies have established own basic laboratory facilities to meet export requirements for analyses.

The capacity regarding issuance of import and export certificates is simple and in operation. The extension service regarding aquaculture and fisheries is fairly new but is understaffed. It is within the Ministry's mandate to gather regional/international market intelligence, which is carried out; however, dissemination to industry thereof is limited. Capacity for trade analysis and policy formulation is also available within the ministry. Stock research is also carried out for main species.

The public sector support systems to create an enabling environment for fisheries related SMEs are present in terms of organisational set-up, and implementation of regulations is on-going. However, the lack of final promulgation of revised and modern Acts for fisheries/aquaculture and other areas of the economy levies a restraining toll. Likewise the responses to the latest WTO Trade Policy Review also consume capacity as does the on-going but almost completed EAC-EU EPA negotiation. However, the generally high level of coordination in government policy debate should help secure design of balanced interventions.

SME Support Institutions

In particular the SME segment needs considerable attention for it to become a dynamic take-off-for-growth platform, and to participate and augment regional trade in fish products. Uganda has defined a set-up of institutions/agencies that are mandated to cater for SME support in terms of training and provision of information. Such facilities are mostly on terms of general and financial management training/education and support.

¹⁴ See TAS, pages 47-50

In the Ugandan economy, fisheries play an important role, it is both a foreign currency earner (second only to coffee) and a socio-economic factor. It provides many jobs in fishery, aquaculture, processing, and trade and in other up and downstream sectors - there is an estimated 1.5 million jobs in fisheries (informed by Ministry of Tourism, Trade and Industry, MTTI). The legal framework is in the process of being modernized. A fisheries bill with a first draft dating from 2005 is now expected to become a new and modern Fisheries Act in 2013. An aquaculture plan was drafted in 2009 and is under implementation. Thus as regards legal framework and regulations Uganda is a case of reference.

Due to the importance of the Nile perch export the processing industry has made its voice well heard in the trade policy debate voiced through Uganda Fish Processors and Exporters Association (UFPEA). Whereas the processors are large enterprises, the fish catch is done by a large group of small scale fishers. This division of labour ensures to some extent that the fish sizes caught are legal and thereby help ensure sustainability in the fishery. Undersized fish will not be purchased by UFPEA members, who has an own self-policing unit working closely with the CA, with undersized fish the fisher risks losing his business. In 2010 the loss made due to undersized fish from illegal fisheries was estimated at 18 Million USH¹⁵. It is not proven that sustainability has been achieved, but the self-policing system operated by UFPEA and the public inspection system has helped bring down illegal fisheries. The main issue today is the flocking of new small scale fishers who may increase the legal catch to a level beyond sustainability, and who may also sell to SME traders for informal trading. The Lake Victoria Fisheries Organisation (LVFO) with its national affiliates also is a factor the monitoring of fisheries development.

The Ministry of Trade Transport and Industry (MTTI) coordinates the trade policy debate through the National Coordinating Committee; it has membership from ministries, URA, specialised agencies and also private sector representation. There are sub-committees with membership from different economic sectors including for fisheries/aquaculture UFPEA and WAFICOS (the umbrella organisation of the aquaculture cooperative). There are other aquaculture associations operating, but despite attempt the TRD team was not able to make contact. So the voice of fisheries is

heard at trade policy debate level. The ministry is also responsible for TID and other fisheries related programmes in coordination with Customs Department, URA, and executed coordinated with COMESA's REFORM programme.

SME operators in fisheries and aquaculture do not have solid institutional support in terms of public training facilities. Such training is conducted essentially by the associations in the area. For Mukene fisheries the Beach Management Units have developed guidelines on good practices for fishing and carry out training activities for fishers - existing as new ones. Training in drying techniques for Mukene is not yet developed. In 2009 new methods of post-harvest treatment of Mukene was carried out with clear indication that better practices can be established on commercially viable basis. It is expected that the new techniques may help reduce the post-harvest losses as also help progress in the fish value chain.

UIRI is the only training facility / incubator that fish processors can make use of. Though a very much needed institution, the physical facilities are designed for training and products development in meat processing. Presently the scarce room is utilized simultaneously for meat, poultry and fish processing, in itself a clear malpractice. Key SPS issues as cross contamination is unavoidable as logical and straight flows moving intermediary product from 'dirty' towards 'clean' sections does not /cannot be established. Such important issues with SPS regulations should be solved immediately for well pointed training activities. Sinks in the processing rooms would also be an asset (a must, in fact).

The Uganda Export Promotion Board (UEPB) is in generally oriented towards the needs of both large scale producers and SMEs and is presently working out a new National Export Strategy expected to be finalised in 2012. The strategy includes an up-grade for the role of fish products and considers that this value chain in the near future may overtake coffee. The strategy otherwise includes measures aiming to reduce informal trade assisted by ITC and the CBT REFORM programme executed with COMESA.

The CBT REFORM Programme has been explained above. In Uganda some success has been achieved in organizing and training the Women ICBT into associations at the four border points of Busia, Bibia, Katuna and Mutukula:

¹⁵ Informed by MTTI

- 189 Women ICBTs trained at the 4 Borders
- 4 women associations are registered at the 4 borders Women ICBT Associations Formed and legalized
- ICBT supportive publications produced (a training manual and brochures as well as posters)
- Formalization messages disseminated under project's Communication Strategy at the borders
- Private sector Linkages forged
- Border agencies' buy-in for the reforms obtained
- Women Informal Cross Border Trade Hub office sited at Mutukula

It is an interesting development as the Uganda Export Promotion Board (UEBP) estimates the informal/formal trade split to be 50/50. The main obstacle is the cost of the STR for the trader, though considerable less than for formal trade, the amounts asked are still considerable. It is foreseeable that some drop-out will take place unless other benefits can be transferred to the SME traders.

The further development of formal trade would be in terms of the implementation of a one stop border shop (which to some extent is already on its way). Such an endeavour is supported by COMESA and also EAC, the latter being a step ahead at least regarding the formation of a Customs Union and the regulatory framework. However, it is generally agreed that the COMESA template for one stop shops should be the chosen one to apply in the future. According to Uganda Revenue Authority the national interest always has to be catered for before the larger scale FTA and integration frameworks can be implemented. In fact implementation of any trade facilitation aspects is as low mover, and the subsequent step the single window is not a priority right now.

Access to credit is a problem in Uganda for the same reasons indicated for Zimbabwe and Zambia. Uganda has no institution that offers training in international trade matters, but relies on the well reputed 'TRAPCA' university in Arusha, Tanzania, where all trade topics are offered at different levels.

Other competitiveness issues

Ugandan produced raw material and processed products based on Nile perch or tilapia face competition from extra-regional imported products that can replace the local product. Whereas Nile

perch products does not a directly replacement product, the one obvious case is the import of frozen tilapia from Asia (mostly China) into Uganda. It is noted that imports into Uganda of tilapia is dismal.

For the other products, which are all local fresh water based products as catfish and mukene, there is really no substitute product sold in Uganda. Hence, competitiveness for these products remains high. Imported products other than Tilapia include marine species as jack mackerel, hake, and salmon, which do not act as substitutes for fresh water fish. Other imported marine based raw material and final products are not considered replacement products, and hence do jeopardize competitiveness.

PRIVATE SECTOR AND TRADE READINESS

One main objective of the TRD study has been to identify the actual status regarding the use of a systemic approach to engage in regional trade for the private sector operators. The method chosen was based on an adapted standard TR Questionnaire (TRQ) applied in USA and Europe. The TRQ was adapted to the ESA conditions, in particular for SMEs, with a view to enhance regional trade participation for this segment that today trade only domestically. Following Zimbabwe and Zambia Uganda was third to test the modified version of the TRQ when addressing the industry. For reasons of confidentiality, company references are made anonymous.

Uganda was selected as it has a high level of diversification in fisheries and aquaculture, and it is also a fish consuming country with a high level of fish product exports. Only small quantities of final product are exported to other regional countries. Fisheries and aquaculture and down-stream processing, marketing and trade activities of the fish product value chain appear to be coherent for the Nile perch industry. There is a concentration of raw material activities related to the larger lakes regarding wild tilapia fisheries, Mukene fishery and tilapia aquaculture. Catfish aquaculture is concentrated near river estuaries. However, one medium size aquaculture farm represents a somewhat integrated system (see below), it is owned by international capital and managed by Zimbabwean nationals.

By tradition there is a weak institutional framework for an aquaculture industry to grow, however the draft Aquaculture Plan and Regulation will cater for this. Whereas fishing has a long tradition with a solid professional association, UFPEA, aquaculture is in many respects an infant industry where the level of private sector participation and organisation is high. Also for the mukene fisheries the BMOs carry out the role of an association.

The TRD identified one umbrella/cooperative organisation for catfish producers, WAFICOS; another professional association, AFALU, for fishermen and aquaculturalists was identified but did not respond to contact attempt.

This presence of equipped and integrated professional associations indicates that the voice of fisheries, aquaculture and product traders are heard in fish trade policy debate. Uganda is a case in reference on this matter.

It is a key point to assess how deep and wide the companies are engaged in the value chain for fish products, in terms of their business activities carried out. There can be many links in this chain but to keep the assessment relevant to TR the following categories of business activities have been applied:

- Raw material producers (fishers and aquaculture operators)
- Key input suppliers as feed and feed ingredients for aquaculture
- Processing enterprises with different products (fresh on ice, filleting, canning, drying, salting, advanced products)
- Marketing/trading activities
- Logistics (includes storage and retail outlets for final products on site and in other regional countries, the ownership or leasing arrangements for transport refrigerated or not, distribution by bicycle and moped for SMEs)
- Professional associations and cooperatives
- Investment facilities and credit institutions form SME operators

For the four TRD countries total of 42 companies and private organisations were interviewed divided on four main groups: Large companies (15), SMEs (13), profession associations and cooperatives (8) and Investment and credit facilities (6)¹⁶. Table 3

¹⁶ This categorisation is intended to be used in a subsequent larger enquiry to be carried out by disseminating the TRQ via email for a more detailed analysis for all SmartFish countries.

below indicates the split along company economic size, where SME status equals a company with less than 30 employees. Since the wanted output is an assessment of the TR status the unit of analysis is the number of business activities that a given company participates in. Thus the table summarises results by the categories listed above, and thereby also allows a quick insight into the level of vertical integration of a given size company. These results cannot be used for generalised statements at national industry level as the number of cases is too small to allow quantitative analyses based on rules for statistical significance. The results are valid only for the companies and organisations interviewed and are used essentially for qualitative assessment.

The 42 companies and organisations display a total engagement into 96 business activities. If associations and investment credit facilities are disregarded the productive sector companies interviewed engage on average in almost 3

business activities, large companies average engagement in more than 3 business activities, the SMEs average less than 3 activities. It can be said for SMEs that activities related to marketing/trade and logistics are, with a few exceptions, at quite rudimentary levels. They involve selling at the local market using bicycles and mopeds as means of transport with no particular gathering of market intelligence or marketing effort.

The team visited 8 companies in Uganda involved with either fisheries or aquaculture and a combination of the above identified business activities, 27 activities in total. This is on average a good result, and it was found that more businesses were engaged in some level of vertical integration. There is two companies displaying participation in four business activities and five companies participated in three business activities. Thus the level of vertical integration is above average compared to other countries.

Table 3: Companies interviewed by economic size and business activity

Country/ Business activity	Mauritius	Uganda	Zambia	Zimbabwe	Total
Large company					47
Fisheries					0
Aquaculture		1		1	2
Feed	1	1	1	1	4
Fish processing	3	5	2	1	11
Trade regional	3	6	3	1	13
Logistics	4	6	4	1	15
Associations	1	1			2
SME					43
Fisheries	1		1	2	4
Aquaculture	1	1	3	2	7
Feed		1			
Fish processing	3	2	3	2	10
Trade regional	1	2	1	1	5
Logistics	3	1	5	2	11
Associations	1	2	2	1	6
Investment/credit	2	1	1	2	6
Grand total	24	30	26	17	96

Source: GCR, WEF, country pages

Large players

As expected interview results indicate that larger companies are more vertically integrated. It reflects the importance of controlling input supplies in an economy that to some extent is import dependent and without full supply chains. In the case of fisheries this is particularly true for fish feed and industrial level technology supplies, where virtually all technology is imported into Uganda. There is one fish feed mill producing ready mixes of own grow-out feed.

As an example one large company displays almost full vertical integration in that it covers most of the listed activities of the value chain: purchase of locally caught fish, processing, storage, elaborated logistics, a dedicated marketing department. The company is engaged with regional trade based on own logistics. A high level of vertical integration indicates the importance assigned by management to regional marketing/trade aspects. This company has accepted TR as an important business and market development concept and also achieved it in practice. Other large companies displayed similar characteristics. All large companies met were aware of the food safety requirements under the SPS agreement and do have CA approved prerequisite programmes (PRP) including a Hazard Analysis Critical Control Points (HACCP) plan on top.

The large enterprises are to a large extent owned by foreign capital and are almost fully vertically integrated. The advantage is that technical and managerial know-how and marketing/export experience is brought into operation, and also less costly foreign financing is available and is managed by skilled officers. Large enterprises were established this way and the transfer-of-technology is only now beginning to show as such elements of business operations are considered of strategic importance. Some companies even have invested in new production facilities to take advantage of its in-house know-how and adapted technology. The downside of foreign ownership fully or partially is that financial resources are exported as well, and if owners based abroad decide to close a company local jobs and knowledge will become idle.

The companies were acquainted with the TR as a concept. Since the companies are almost exclusively selling products based on Ugandan raw material to the international markets only one of them had developed market strategies based on an increased participation in regional trade. Final

products do reach as far as DRC, South Sudan, Angola and RSA; however border crossings of such exports are carried out mostly by middlemen traders.

When exposed to the TRQ the main trade related concerns expressed by the large players include:

- How to get the product to the consumer in regional markets in good time and at reasonable cost.

The obstacles include:

- General lack of market intelligence,
- The consumer's ability and willingness to pay for quality,
- Poor infrastructure
- High trade cost involved and limitations in trade facilitation.

The companies more the less assume that market intelligence business services are part of the mandate of public export promotion agencies. In Uganda it is the mandated to UEPB, so far there is no such activity carried out on regionally traded fish products. UFPEA would seem a logic operator in this area but it only collects information of Nile perch markets in Europe. Instead some of the large companies carry own market intelligence search.

The constraint for the large companies is on the raw material supply side. It does explain the reluctance to engage in new development by restructuring part of the production capacity to meet preferences in the regional markets. However two companies expressed an interest in developing new products depending on more solid market research

SME Operators

The SME segment of operators interviewed is owned and managed almost exclusively by local groups/families. The availability of funding therefore has limitations and local access to credit is prohibitive in Uganda due to high interest rates, approval procedures and collateral requirements. Ownership often goes hand in hand with active involvement in daily management, where the company manager is also responsible for financial and marketing management. This mix of roles keeps the company in a certain fixed position from where graduation to a higher level of development is difficult, not least due to the fact that the owner/manager would have to decentralise decision making power over part of the company.

Vertical integration is limited to fewer business activities but is growing, normally involving production, local sales and simple logistics (bicycles and mopeds). A notable exception is the catfish aquaculture cooperative, where a producer also is involved with marketing and product development.

The perishable products from fishery and aquaculture only undergo little and simple processing (drying, salting, smoking, fresh on ice) sausage making being the exception. It is a common constraint in relation to regional trade; it was found particularly for the SME operators that the processing method limits the shelf life of the product. Transporting the product using bicycles and mopeds and in some cases pick-up trucks is a further constraint. Products can only reach markets within a certain perimeter depending on road and weather conditions. It is a must to find products of a longer durability and better means of transport. In this context the government's activity related to the setting up of improved market places in border crossing areas is a positive step.

For the SMEs there is only little registered export, however, all enterprises met were not aware that even selling to local markets imposes food safety requirements and also asks the ability to produce documentation for such. Selling at factory gate leaves the buyer with exactly the same problem - without a CA approval the food items are de facto not deemed good for human consumptions (even if the quality of the sold products actually were found acceptable). In most cases there is still scope for improvement. The rationale for a high level of integration is the need to assure for example input supplies based on own manufacturing and hence also the ability to control and document quality.

There is ample scope for smaller companies to learn from larger integrated systems in the approach to management. A good case is in Ugandan aquaculture is WAFICOS where the control of the grow-out process is well documented. Control involves a well-designed lay-out of pond schemes in the optimal locations, pond design, and adaptation of feed to the local conditions, feed application, water flows, monitoring of the stock for disease, and good harvesting and post-harvest handling methods. Traditionally these aspects are not well understood by SME operators, but WAFICOS undertakes to train managers on the spot in the topics. Many SME operators have invested into aquaculture production because false rumours tell that

profits are high and quick. Hence the tumbling of new unprepared SME operators, who enter a specialised production, into aquaculture production - failures have been abundant.

The presence of a 'star' company that can act as centre of excellence and guide the investors can save many resources for the investors as for the country. When exposed to the TRQ, marketing planning and strategy were aspects of business that the SME had hardly thought about. In the present situation the production is mostly sold at farm/factory gate. Also in this regard the 'star' company can assist SMEs.

For Mukene fisheries the BMOs should be equipped with the option to limit the number of new entrants. For aquaculture, tilapia or catfish it is not surmountable tasks to up-grade aquaculture grow-out or fishing/post-harvest handling techniques to meet basic food safety requirements and thereby produce regionally marketable products. With such improved and marketable products the marketing strategy can be expanded to capture regional markets. The limiting factors related to TR for SMEs include:

- Lack of formal managerial and production technology skills,
- Lack of dedicated/specialized training institutions on aquaculture
- Only superficial knowledge about quality assurance systems and SPS requirements,
- Limited knowledge on how to source financing,
- Expensive credit
- Very limited knowledge on trade regulations and border crossing procedures.

These factors were found at play in all cases by the TRD team. In fact when going through the draft TRQ most SME operators indicated very limited understanding of the concept and the underlying requirements to SPS (food safety issues), trade regulations and border procedures.

There is no targeted support from the Government agencies designed to meet SME needs of the fish product value chain. SME development and trade promotion agencies should develop courses on requirements to the STR and standard trade customs documentation. Otherwise training in SME fishery and aquaculture has been the domain of development partner programmes, which is particularly valid for the necessary knowledge on SPS requirements. The SMEs suffer from the

same lack of access to market intelligence as do the large companies.

Only two associations were met and both focused on supporting members with formalities as registration of fishing or aquaculture activities and with reporting on landings and harvest. They act in other words only in the local context not nationally. Generally the associations were aware of the necessity to contact government and become a voice in trade policy debate, but the practise of this was not seen.

The ICBTA programme executed by COMESA does a commendable job in the process of establishing SME border traders' associations, but there is no specific training of traders in fish product issues. The latter group however has good use of the training in general and simplified (STR based) border procedures. The TRD team informed association representatives about the potential roles that an association can have in trade policy debate, and the importance that this has for the members.

KEY ISSUES AND POINTERS (RECOMMENDATIONS)

Through discussions with TRD stakeholders, findings of major recent studies and programmes, and own observations mentioned in the report text, a number of key issues were identified. These are presented below together with initiatives that the national authorities and private sector operators and their associations can use, when further developing the trade enabling environment. Note that the term 'pointers' rather than 'recommendations' is used, as issues found in four TRD countries have to be considered. Conditions do vary substantially between the countries; hence, more detailed pointers/recommendations are only applicable at national level. The main recommendation is therefore dedicated to the private sector operators in terms of the Trade Readiness self-assessment tool: the Trade Readiness Questionnaire (TRQ), which has been adapted to the SME level of business in the fish product value chain. TRQ is presented in Annex 1 to Volume I: Main Text. It is not attached to the individual country reports. However, it can be lifted off the TRD for actual use (it is not repeated in the list below):

Issue 1: Informal trade and border procedures

Formal trade is practiced by the Nile perch industry extra-regional export and registration through the Custom's Department, URA, is on an electronic basis. However, so far Uganda has made only a small contribution to an otherwise very limited intra-regional formally registered trade, due to the practise of informal trade. Thus much more intra-regional trade than what is officially recorded exist, the split formal/informal trade was estimated at 50/50 by UEPB. Informal trade means that the border crossing of fish products take place in small non-dutiable quantities and cannot be recorded in statistics under the existing reporting systems. Informal trade practices provide a somewhat diffuse and even confusing picture to the national authorities when trying to analyse statistical trade data for planning and policy development purposes.

Pointer 1: Informal trade lead to insufficient

information and statistics on intra-regional fish trade in volume and value and by different product types. The value-chain and actual extent of the informal trade should be resolved by committing the national authorities to practise and promote:

- Further integration of the link to the COMESA CBT programme that enhances capacity to collect systematic data and aims to formalise trade through the promotion and establishment of ICBTAs that are trained in and practice STR;
- The practise of firm statistical collection and reporting by providing training in collection methods and statistical data analysis which would be needed for policy and planning purposes;
- A regional fish trade information and database system should be established at the level of the Agriculture Department, COMESA, to be more detailed than the COMTRADE, to reflect product trade. The data collection points should be clearly identified and mandated and with transfer of operating knowledge via information, communication and outreach programs

Issue 2: In adequate capacity for SPS control in border areas

Though Uganda is better equipped than other countries visited there is insufficient institutional capacity and shortage of human resources with the right training at the border crossings. This was identified as a key problem for SMEs; in particular the outreach to SME operators is missing or weak. The result is that the SPS agreement is not always complied with for intra-regional and domestic trade. It follows that fish control and inspection is inadequate and the fish products for human consumption may not qualify as safe to eat. In fact the local trader and operator also violate the SPS related commitments as there clearly is no documentation for traceability, which is an element of the Pre Requisite Programmes (PRP).

Pointer 2: It is important that guidelines, protocols, PRP manuals, HACCP plans and their means of verification are standardised, harmonised and designated/gazetted. This may lead towards compliance with the SPS agreement for fish products that are traded mostly intra-regionally (smoked, sundried, salted products, chilled and even some frozen products):

- Standards equal to the SPS and Codex Alimentarius or otherwise relevant ISO standards for capture fisheries and aquaculture should be developed and be promoted to operators, and templates for PRP and HACCP plan should be established and disseminated to the local points of extension service and border point inspection unit;
- Extension service (and also CA) staff should be trained in how to adapt the templates to the local production lines and aquaculture operations;
- The professional associations, UFPEA, WAFICOS, BMOs, should be informed about the SPS requirements and the templates, including traceability, in an easy to understand form and be able to disseminate these to their members;
- Build capacity with the CA in particular in the border areas, so that inspection and control is done by adequately trained staff.

Issue 3: High cost of trade due to poor trade facilitation

Trade facilitation is an issue as regards implementation of the commitments under existing FTAs signed by REC members, in particular for COMESA countries, where a general template for a Customs Union exists. However, Uganda has not ratified the FTA (as is the case with DRC) and is a third country trade partner in this context. As a result, transaction costs under formal trade for fish products are very high with the neighbouring countries as DRTC, Rwanda, South Sudan, partially due to the poor quality of physical infrastructure, but also as a result of border crossing procedures and issues. The latter may involve up to four days of waiting for a truck to pass. However, part of this issue is addressed by the large scale programmes under the Tripartite region's and COMESA's leadership.

Pointer 3: Political will and good governance, exercised by the participating members of the Tripartite negotiation process for a region-wide FTA, is a key element to its success. It is therefore important that the fishery sector is not marginalized in the deliberations at national, regional or

international level and that Trade Readiness is enhanced. To hear the voice of particularly SME in fisheries as regards Trade Readiness the following should be done:

- Train associations (WAFICIS, ULUA) and their members in STR requirements and procedures;
- Establish or equip existing professional associations with mandates to disseminate and promote participation in fish trade policy debate also as regards trade readiness;
- Mobilization of the existing SME operator associations, and potentially new ones to be formed, in the fish products value chain to form discussion fora locally as a 'cluster' and help define the key actions required to enhance trade readiness;
- Capacity building of regional traders and processors associations/organisations in areas such as STR based border procedures, self-policing, and how to access financing.

Issue 4: Poor market intelligence trade promotion

Equal to large and SME operators is the need for access to up-dated market intelligence on regional markets. This encompasses understanding dynamics in consumer preferences for product types, presentation and taste, and regarding changes in price levels for the different fish products. Also information on changes in supply and prices of input to aquaculture as fingerlings and feed are missing. Thus the industry is deprived of key information upon which to base or adapt their market strategy. In some countries the gathering of market intelligence is mandated to public sector agencies, but there are actually no such activities going on.

Pointer 4: Missing market intelligence can lead to arbitrary and wrong market strategies at company level. In a historic situation, where the demand for fish products is growing regionally, combined with a slow increase in purchasing power, this is not only missing an opportunity - it can be devastating to the industry and hence cause a misuse of scarce national resource wealth. If the products made are not known outside the national border regional trade in such products will be slowed down. The following should be done:

- Gazette regulations that clearly identifies the agency responsible for market intelligence gathering and dissemination

and trade promotion (it should be the same agency);

- Develop standards for information typology and communication flows to ensure the information is structured and harmonised;
- Train UEPB staff in how to carry systematic market intelligence searches for fish products and input supply on the above basis;
- Organise regional sessions with similar agencies to participate with a view to establish common grounds of understanding and to build a network;
- Analyse the need for fish product trade promotion activities particularly designed for the SME level (UEPB to lead working closely with UFPEA, WAFICOS). This can be in terms of arranging trade events, exhibitions, fairs, support the SMEs financially to secure participation within the country and also in similar events regionally;
- Organise regional sessions with similar agencies from neighbouring countries to participate with a view to establish common grounds, harmonised and standardised information flows and to build a network;
- Create awareness about the support programmes using, radio, TV, mobile phones and printed matter (UEPB to lead);
- Engage the professional association as vehicle both for communication and for the promotion of new government initiatives relevant to the sector and trade.

Issue 5: Market adaptation and product development

Though intra-regional trade was found to be growing for Uganda as exporter, it is still low thus depriving the consumers from the use of white protein from fish as a supplement to food security. Part of this issue is related to inadequate processing methods, market infrastructure for intra-regional fish trade in terms of lacking or poorly equipped collection centres, distribution facilities, receiving centres, and retail markets. Such facilities a very few in Uganda and are not regularly inspected by the CA, which is also the case at border crossings posts, making the products from these facilities non-compliant to the SPS requirements, and hence non-tradable. The SME companies should be encouraged to develop special products adapted to the regional taste and that have good durability as e.g. the fish mince sausage.

Pointer 5: The substance matter of this issue is economical by nature, meaning that only investment can improve the situation. Both companies and the Government will have to invest in improved capabilities. It is therefore advised that the national authorities should:

- Identify best practice in mukene drying or other processing and apply these methods via training programmes;
- Establish or equip existing professional associations with mandates to disseminate and promote participation in fish trade policy debate as regards trade readiness;
- Identify best practices for the design of border line market place facilities with a view to solutions that are justifiable also economically;
- Promote further investment in aquaculture and/or processing in land based on the application of 'good practices', including development and dissemination of and dedicated Aquaculture Investor's Guideline to avoid poorly prepared investors entering the area;
- Up-grade the UIRI facility so that it is able to handle fish products in compliance with the SPS agreement
- Create awareness and sensitize stakeholders on regional fish trade via meetings, workshops, printed and electronic media on SPS issues and innovation.

ANNEX 5.4 – MAURITIUS

Participation in Regional Trade and Markets

Intra-regional trade in fish products has played a quite small role for Mauritius despite the fact export of fish products is a long tradition. During the visit to Mauritius the TRD learned that the export of almost exclusively Tuna products to the EU Market was a solid business, and that this product would be too expensive for the local and regional markets.

What have been traded regionally in recent years are other products based on imported Snoek (*Thyrsites atun*) raw material. It is salted and smoked then marketed locally or exported to RSA. The 10% export tax/duty is an obstacle to regional trade. Other products for the continental market are based on tuna trimmings, but the regional marketing is very limited. The aquaculture industry exports a small quantity of red drum to RSA and Reunion.

The limited participation in regional trade in fish products is due to a policy of increasing Mauritius' level of self-supply of own markets with fish products, rather than paying for imports. So there a Government ban on regional exports from the artisanal fishery.

Mauritius has an advanced processing plant for fish feed. The plant produces a range of products for the aquaculture industry from starter feeds through to ready mixes for grow out fish production. These products are used in country but also exported to Madagascar and in small quantities to Uganda and Zimbabwe.

Imports of fish products from the region are also limited to dismal quantities.

Existing local market infrastructures are in the process of being up-graded, but generally the market places comply with SPS agreement.

Formal and informal trade

Regional trade is formal as concerns all products exported to or imported from the region.

Competitiveness

Competitiveness of the Mauritian export products in the regional markets is demonstrated by the products' ability to meet the test of free export markets while expanding real income. The competitiveness of locally produced fish products also depends on availability of imported similar raw material which could be used as a substitute in the local market.

The parameters that constitute the competitiveness framework for the national industry were identified in the Main Text. The role of the government is to generate an effective platform for competitive enterprises. Government reforms alone are a necessary but not sufficient cause, as has been demonstrated by many countries which have undergone structural adjustment reforms but have not achieved rapid and sustained growth. Competitiveness is not about the ability of governments or donor agencies to pick winners and losers at the industry or company level. This has been shown to be extremely difficult and for every success story there are other examples of failure and great waste. However, government does have an important role to play in facilitating investment in capital, investment in human resources, the freeing up of untapped resources, strengthening the efficiency of market forces and the ability of entrepreneurs to translate their visions into reality. Growth in productivity is driven by many factors that can be grouped under three major headings:

- Macroeconomic conditions include favourable policy at fiscal, monetary, open trade regime, and other broad and overarching levels that are a necessary but not sufficient cause for growth in production and trade.
- Microeconomic conditions refer to such elements as tax codes, infrastructure, utilities, regulation, education, administration, and many other factors influenced by both the private and public sectors that affect the day-to-day ability

of businesses to compete. This also includes support via export and investment promotion and collation and dissemination of market intelligence.

- Quality of business strategy refers to the choices business leaders make about where and how to compete and how to position their companies. It also refers to their effectiveness in implementing their plans and their efficiency in managing their operations, in particular the aspects of increased productivity and efficiency are important

To achieve competitiveness, effort must be devoted to all three of the key competitiveness components. Based on the definition WEF has developed a method of measurement called the 'Global Competitiveness Index (GCI)', it is a composite encompassing 12 pillars of competitiveness aspects where the scoring is based on interviews with government and business managers. It has been calculated annually since 2005 to an increasing group of countries now counting 142.

The GCI pillars are used to group countries according to three stages of development and identify the key drivers that may cause the graduation of a country to a more advanced stage. The first stage is factor-driven economies. The country competes on its factor endowments—primarily unskilled labor and natural resources.

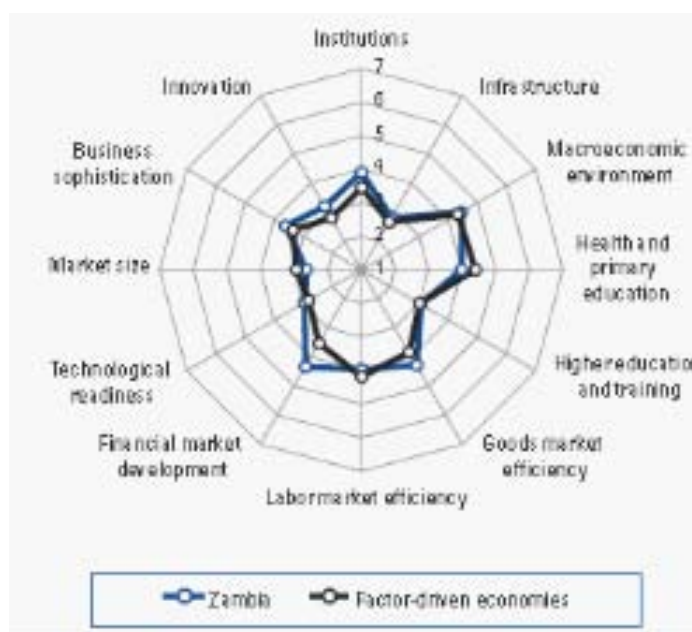
Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages Mauritius belongs to the next stage the efficiency-driven group of economies where:

- Productivity has increased and wages rises with advancing development.
- Development of more efficient production processes and increasing product quality because wages have risen and they cannot increase prices.

At this point, competitiveness is increasingly driven by higher education and training (pillar 5), efficient goods markets (pillar 6), well-functioning labor markets (pillar 7), developed financial markets (pillar 8), the ability to harness the benefits of existing technologies (pillar 9), and a large domestic or foreign market (pillar 10).

The graphics below (from GCR 2011-2012) demonstrate how well Mauritius does (the blue line) compared to the average for the stage of development that it belongs to (the black line). If the blue line is outside the black, the indication is that the country fares better than the group average. It is seen that the closer the lines gets to the perimeter the more advanced the economy. Uganda fares generally above the group average indicating an improved competitiveness, and even advancing towards the next stage

Figure 1 Competiveness estimate - GCI spider webs for four TRD countries



Source: GCR, WEF, country pages

The GCI is also used to rank the countries from 1 to 142. Table 2 below indicates the present and earlier ranking of Uganda. In terms of rank it is safe to say that Uganda tends to stay at the same level indicating little improvement. The indication

is that Uganda is moving relatively slow in the right direction by the establishment of a still improved framework for increased competitiveness and productivity of the economy.

Table 2: GCI Ranking and GDP per capita

Country	Group	Rank 2011-12 (142 countries)	Rank 2010-11 (139 countries)	2009-2010 (133 countries)	GDP 2010 (per capita, current USD)
Mauritius	Efficiency driven	54	55	57	7,598

The above brief analysis of GCI is for all economic sectors. Some factors are of more importance than others for the competitiveness of the fisheries sector and fish product value chain, in particular when it comes to the framework conditions for the SME segment. Some of these aspects are described below.

Macroeconomic environment

The macro-economic environment for Mauritius is healthy. Macroeconomic stability has been achieved and growth rates are high, the Government collects corporate and personal income taxes and customs duties, VAT is also applied and collected. The investment climate has been made attractive to foreign and local investors who are treated on equal terms, there is an off-shore facility deemed among the best designed and quite successful.

For the fisheries sector the large scale operators enjoy well-designed programmes and infrastructures. There are already approved plans for capture fisheries and aquaculture development under implementation. The main constraint for the large scale processing operations mostly based on tuna is the lack of a local fleet of vessels; today tuna for the canning industry that can enjoy preferential treatment is supplied essentially by the EU long distance water fleet. A recently initiated Fisheries Partnership Agreement with the EU will help assure more stability in supply, but still at a too low level for the canning industry to remain profitable compared to Asian and Latin American canners.

For the SME segment in both artisanal fisheries and aquaculture operations the situation is

not as positive. Regulations are still being implemented and the government supported technical programmes are limited in scope and funding. Conflicts between the growing tourism sector and the artisanal operators are present. A somewhat limiting factor is the ban of export of artisanal catch, based on the argument the local markets and the tourism catering industry need the products that would otherwise have to be imported, has caused this part of the sector to export only small amounts to the region.

Institutions – Competent Authority and SPS

Development of the institutional set-up is significant for fisheries competitiveness. The TAS identified food safety issues to be a key constraint for developing trade in fish products both internationally and regionally. It further indicated the requirements both at institutional level and for the private companies¹⁷ to produce and deliver safe SPS compliant products. Respecting the basic principles of WTO is a must:

- Most Favoured Nation principle – no discrimination of other nations
- National Treatment Principle - means treating foreign and local products equally.

The need to comply with the SPS requirements is essential for Uganda as the country mostly trades in products that are based on own produced raw material. Traceability and other pre-requisite programmes (RPR) have to be applied from catch/aquaculture production and harvest through to delivery of the final processed product. Compliance is a must for exporters also targeting regional markets. National laws and regulations have to reflect clearly the WTO principles and agreements.

¹⁷ This categorisation is intended to be used in a subsequent larger enquiry to be carried out by disseminating the TRQ via email for a more detailed analysis for all SmartFish countries.

These must be applied equally to products from all trading partners when supplying to the regional and local markets. Thus the key institution that needs to be in place to allow regional trade in fish products is an approved Competent Authority (CA) and access to an accredited laboratory (public or private). The companies met did indicate knowledge about the SPS agreement, and some were authorised by the CA.

Mauritius has a CA is fully equipped as regards regulatory framework and well fit into Government structures. The level of staff training is also found solid ranging from food scientists to (food and fisheries) technologists. However, the head of CA has raised concern over the trend that trained staff seize the opportunity to join private operators, where salary and other benefits are better, at times practically limiting the work of the CA. The CA has good understanding of its role as a partner for improvement in food safety own control systems (rather than a role as a policeman). The enterprises will have to learn to use the CA as an advisor as well. The public health laboratory is fully equipped for export product analyses.

The main gap is the limited capacity to inspect at the local landing and aquaculture sites. Locally landed fish and shellfish are destined for the domestic market, where SME operators are responsible for simple processing and trade. There are modernized landing sites with an adapted market structure in two locations. Industry indicated that some of these products could be marketed regionally. The latter however requires that the Government lifts the existing export ban on such products. The rationale of the ban is to protect the local market supply, if the ban is lifted the seafood supply would go down in volume and variety and imports could become necessary. It is noted that Mauritius is a main exporter of tuna products out of the region.

SME Support Institutions

In particular the SME segment needs considerable attention for it to become a dynamic take-off-for-growth platform, and to participate and augment regional trade in fish products. Uganda has defined a set-up of institutions/agencies that are mandated to cater for SME support in terms of training and provision of information. Such facilities are mostly on terms of general and financial management training/education and support.

In general the institutional set-up is advanced. The set-up rests on long term planning that is based on a common IO fisheries strategy. Though designed

as a region wide framework for five member countries, it has also assisted Mauritius in adapting policy and establishing a coherent institutional set-up. The strategy is comprehensive and covers all aspects from sustainability issues, post-harvest and SPS, marketing and trade.

At policy level Mauritius has a long tradition for planning ahead and for implementing laws and regulations fairly quickly, which offers the industry a solid and stable platform for their activities. Mauritius has in continuation of its long tradition prepared a Master Plan for the sector consonant with the IO strategy. The Master Plan does not confine itself to the narrow definition of 'fisheries' but addresses the issues of the broader seafood sector, including the entire value chain from production (both capture fisheries and aquaculture) to distribution and processing through to marketing issues. It contains in a prioritized way action investment projects.

Most recently, Mauritius initialled a Fisheries Partnership Agreement (FPA) with the EU granting its Long Distance Water Fleet access to fish in Mauritian waters; it further aims also to ensure that originating tuna are landed in Mauritius. The PFA ensures the payment of compensation for the catch to be used for fisheries sector policy development and general economic development.

The fisheries sector is characterised by a small group of medium to large enterprises in tuna processing, and a large group of small operators in artisanal fisheries and aquaculture (mariculture). Thus the government and quasi-government institutions including the Mauritius Chambers of Commerce and Industry, and Enterprise Mauritius are oriented towards the segment of larger enterprises in fisheries. There is a host of programmes to support this segment of the industry in terms of export and investment promotion, participation in trade fairs etc. These are well designed and highly appreciated by the industry.

The introduction of the Fisheries Hub bring together solid knowledge on markets, training institutions for fisheries and fish processing, functioning infrastructure, repair and maintenance facilities and a product display/auction system. The introduction of a true one stop approach to the customs clearance and checking of other concerned authorities ensures efficient and fair procedures. However, this is mostly to the benefit for tuna products imported from global sources and for extra-region exports of tuna.

Support to artisanal fishers is provided but in terms of transfer payments not business development. Artisanal fishers, who mainly fish in the lagoon areas of Mauritius and Rodrigues and along the reefs, are among the poorest sectors of the Mauritian economy with average earnings from fishing being around MUR 2,760 per month. This income is supplemented by Government payments in the form of a Bad Weather Allowance, which is designed to compensate fishers when they are unable to fish as well as a number of other benefits (assistance with children's education, medical care etc.) that are provided through the Fishermen's Welfare Fund. These supplementary allowances add a further MUR1447 per month on average to a fisher's gross income for a total of approximately MUR 4,200 (USD 140) per month. This average per capita income of inshore, artisanal fishermen is therefore significantly less than the average for Mauritius as a whole of USD 7,804 per annum in 2010 or USD 650 per month.

SMEDA is a parastatal agency dedicated to SME development; it is associated with the Ministry of Business Enterprises & cooperatives (Business Enterprise Division). The formal status allows a short and quick decision making process, and many initiatives have been executed for the agriculture, craftsmanship and tourism oriented sectors e.g. production and display of e.g. handicrafts. There have been no activities for the fisheries sector, but a sincere interest was expressed in getting more involved. One area where the facilities of SMEDA would be immediately useful to the SME fishers, aquaculture and marketing operators would be its Information and Communication Technology (ICT) training and media center. Here fisheries SMEs would be to get training in systematic IT based market search activities, and the use of IT in accounting. The media center is up-to-date and additionally it offers support in finding e.g. market intelligence and SPS relevant legislation.

Regarding training facilities Mauritius is in the lead on higher education and vocational training, see Figure 1. Training is available at all levels of maritime education including fisheries relevant training at a skipper's school and training in food technology and science to cater for food safety. Fish inspectors are trained to the level of international standards with an approved CA responsible for control and inspection services. Export of tuna products to EU markets is a well-

established activity bringing foreign currency and jobs. There is also an elaborate training programme for all aspects of developing an efficient logistics supply chain including courses in imports- and export procedures, trade documentation, customs clearance, forwarding, stewardship etc¹⁸. The latter kind of training is highly relevant for the establishment of an efficient trade enabling environment, and Mauritius provides also in this area a 'good practice' to serve as inspiration for other countries.

¹⁸ See the full pallet of courses offered at: 'Freight Academy', Port Louis, Mauritius. Website: <http://www.freightacademy.com>

PRIVATE SECTOR AND TRADE READINESS

One main objective of the TRD study has been to identify the actual status regarding the use of a systemic approach to engage in regional trade for the private sector operators. The method chosen was based on an adapted standard TR Questionnaire (TRQ) applied in USA and Europe. The TRQ was adapted to the ESA conditions, in particular for SMEs, with a view to enhance regional trade participation for this segment that today trade only domestically. Following Zimbabwe, Zambia and Uganda Mauritius was fourth to test the modified version of the TRQ when addressing the industry. For reasons of confidentiality, company references are made anonymous.

Mauritius was selected because it is an advanced economy and the fisheries sector has a high level of diversification and is based on marine species. It is also a fish consuming country with a high level of fish product exports. Only small quantities of final product are exported to other regional countries for reasons already given. Fisheries and aquaculture and down-stream processing, marketing and trade activities of the fish product value chain are coherent for the tuna industry. Artisanal activities are also well integrated into coherent value chains. The one medium sized mariculture farm represents a somewhat integrated system (see below), it is owned and managed by local resources.

By tradition there is a weak institutional framework for an aquaculture industry to grow, however the draft 'FISHERIES MASTER PLAN FOR MAURITIUS, RODRIGUES AND THE OUTER ISLANDS' (Mauritius, November 2011) caters for this. Whereas fish processing and exports has a long tradition with a solid professional association, MEXA, aquaculture is in many respects an infant industry where the level of private sector participation and organisation is high. Artisanal fishermen has an own association called the Bank Fishermen Operators Association (BFOA) which

is also well organised and heard in Government debate.

This presence of equipped and integrated professional associations indicates that the voice of fisheries, aquaculture and product traders are heard in fish trade policy debate. Mauritius is a case in reference on this matter.

It is a key point to assess how deep and wide the companies are engaged in the value chain for fish products, in terms of their business activities carried out. There can be many links in this chain but to keep the assessment relevant to TR the following categories of business activities have been applied:

- Raw material producers (fishers and aquaculture operators)
- Key input suppliers as feed and feed ingredients for aquaculture
- Processing enterprises with different products (fresh on ice, filleting, canning, drying, salting, advanced products)
- Marketing/trading activities
- Logistics (includes storage and retail outlets for final products on site and in other regional countries, the ownership or leasing arrangements for transport refrigerated or not, distribution by bicycle and moped for SMEs)
- Professional associations and cooperatives
- Investment facilities and credit institutions form SME operators

For the four TRD countries total of 42 companies and private organisations were interviewed divided on four main groups: Large companies (15), SMEs (13), profession associations and cooperatives (8) and Investment and credit facilities (6)¹⁹. Table 2 below indicates the split along company economic size, where SME status equals a company with less than 30 employees. Since the wanted output

¹⁹This categorisation is intended to be used in a subsequent larger enquiry to be carried out by disseminating the TRQ via email for a more detailed analysis for all SmartFish countries.

is an assessment of the TR status the unit of analysis is the number of business activities that a given company participates in. Thus the table summarises results by the categories listed above, and thereby also allows a quick insight into the level of vertical integration of a given size company. These results cannot be used

for generalised statements at national industry level as the number of cases is too small to allow quantitative analyses based on rules for statistical significance. The results are valid only for the companies and organisations interviewed and are used essentially for qualitative assessment.

Table 2: Companies interviewed by economic size and business activity

Country/ Business activity	Mauritius	Uganda	Zambia	Zimbabwe	Total
Large company					47
Fisheries					0
Aquaculture		1		1	2
Feed	1	1	1	1	4
Fish processing	3	5	2	1	11
Trade regional	3	6	3	1	13
Logistics	4	6	4	1	15
Associations	1	1			2
SME					43
Fisheries	1		1	2	4
Aquaculture	1	1	3	2	7
Feed		1			1
Fish processing	3	2	3	2	10
Trade regional	1	2	1	1	5
Logistics	3	1	5	2	11
Associations	1	2	2	1	6
Investment/credit	2	1	1	2	6
Grand total	24	30	26	17	96

Source: GCR, WEF, country pages

The 42 companies and organisations display a total engagement into 96 business activities. If associations and investment credit facilities are disregarded the productive sector companies interviewed engage on average in almost 3 business activities, large companies average engagement in more than 3 business activities, the SMEs average less than 3 activities. It can be said for SMEs that activities related to marketing/trade and logistics are, with a few exceptions, at quite rudimentary levels. They involve selling at the local market using bicycles and mopeds as means of transport with no particular gathering of market intelligence of marketing effort.

The team visited 7 companies in Mauritius involved with either fisheries or aquaculture and a combination of the above identified business activities, 20 activities in total. This is on average

less than for other countries. However, is mostly due to the fact the tuna processing industry does not carry out fishing activities. It was found that all businesses were engaged in some level of vertical integration. There is six companies displaying participation in three business activities and one companies participated in two business activities.

Large players

As expected interview results indicate that larger companies are more vertically integrated. It reflects the importance of controlling input supplies in an economy that to some extent is import dependent and without full supply chains. In the case of fisheries this is particularly true for fish feed and industrial level technology supplies, where virtually all technology is imported into Uganda. There is one fish feed mill producing ready mixes of own grow-out feed.

As an example four large companies displays almost full vertical integration in that it covers most of the listed activities of the value chain: purchase of fish, processing, storage, elaborated logistics, and a dedicated marketing department. The companies are however not engaged with regional trade. A high level of vertical integration indicates the importance assigned by management to regional marketing/trade aspects. The companies has accepted TR as an important business and market development concept and also achieved it in practice. All large companies met were aware of the food safety requirements under the SPS agreement and do have CA approved prerequisite programmes (PRP) including a Hazard Analysis Critical Control Points (HACCP) plan on top.

The large enterprises were started based on foreign capital, mostly from Europe. They are still to some extent owned by foreign capital. The advantage is that technical and managerial know-how and marketing/export experience is brought into operation, and also less costly foreign financing is available and is managed by skilled officers. Large enterprises were established this way and the transfer-of-technology is only now beginning to show as such elements of business operations are considered of strategic importance. Some companies even have invested in new production facilities to take advantage of its in-house know-how and adapted technology. Mauritian industry does not experience the standard downside of foreign ownership, where financial resources are exported as well. Most to the profits are retained in the country and used for further investment. However, if owners based abroad decide to close a company local jobs and knowledge will become idle.

The companies interviewed were acquainted with the TR as a concept. Since the companies are almost exclusively selling products based on EU-fleet delivered raw material, but caught from IO waters under FPAs, none of them have developed market strategies based on an increased participation in regional trade.

When exposed to the TRQ the main trade related concerns expressed by the large players include:

- The imposed ban on exports
- General lack of regionally market intelligence,
- The consumer's ability and willingness to pay for quality,
- High trade cost involved and limitations in trade facilitation.

The companies more the less assume that market intelligence business services are part of the mandate of public export promotion agencies. In Mauritius it is the mandated to Enterprise Mauritius and SMEDA, so far there is no such activity carried out on regionally traded fish products. MEXA would seem a logic operator in this area but it only collets information of Tuna product markets in Europe. None of the large enterprises have indicated an interest in gathering market intelligence search on regional opportunities.

The constraint for the large companies is on the raw material supply side. It does explain the reluctance to engage in new development by restructuring part of the production capacity to meet preferences in the regional markets.

SME Operators

The SME segment of operators interviewed is owned and managed almost exclusively by local groups/families. The availability of funding therefore is not a big problem in Mauritius, however, elevated interest rates, approval procedures and collateral requirements still have to be met. Ownership often goes hand in hand with active involvement in daily management. The traditional mix of roles is not a main problem. The company is able to graduate to a higher level of development, but is depends in the owner/manager's willingness to decentralise decision making power over part of the company.

Vertical integration is present and growing, normally involving production, local sales and simple logistics (pick-up trucks, bicycles and mopeds).

The perishable products from fishery and aquaculture only undergo standard processing (smoking, fresh on ice, frozen). Thus durability is less of a problem in Mauritius. As most SME product is sold locally and the size of the island considered transport is not an obstacle. In this context the government's activity related to the setting up of improved market places is a positives step.

For the SMEs there is only little registered export, however, all enterprises met were aware that even selling to local markets imposes food safety requirements and also asks the ability to produce documentation for such. In most cases there is still scope for improvement. The rationale for a high level of integration is the need to

assure for example input supplies based on own manufacturing and hence also the ability to control and document quality.

There is some scope for smaller companies to learn from larger integrated systems in the approach to management. A good case is in mariculture, where the control of the grow-out process is well documented for one medium sized company. Control involves a well-designed lay-out of cage schemes in the optimal locations, cage design, and adaptation of feed to the local conditions, feed application, monitoring of the stock for disease, and good harvesting and post-harvest handling methods. Traditionally these aspects are not well understood by SME operators. Due to the generally higher level of education Mauritian investors into aqua-/mariculture is more cautious. In fact investment into the sub-sector is seen a risky despite the fact that the new Master Plan does ell in explaining how to approach such an investment. Hence, the tumbling of new unprepared SME investors/operators, who wish to enter into aquaculture production, is not common in Mauritius.

The presence of a 'star' company may help save many resources for investors as for the country. It can act as centre of excellence and guide the investors, and may also prove useful of trade related matters. The limiting factors related to TR for SMEs include:

- Lack of dedicated/specialized training institutions on aquaculture
- The ban on export of fish products and the 10% export tax
- Expensive credit
- Limited knowledge on trade regulations.

There is no targeted support from the Government agencies designed to meet SME needs of the fish product value chain. SME development and trade promotion agencies should develop courses on requirements to the COMESA drive STR and standard trade customs documentation. Training in SME fishery and aquaculture aspects has been carried out by individuals or has been the domain of development partner programmes, which is particularly valid for the necessary knowledge on SPS requirements. The SMEs suffer from the same lack of access to market intelligence as do the large companies regarding regionally trade product.

The one association was met and it clearly indicated a thorough understanding of SPS

and trade related issues. It acts nationally. The necessity to contact government and become a voice in trade policy debate was well understood and practised.

KEY ISSUES AND POINTERS (RECOMMENDATIONS)

Through discussions with TRD stakeholders, findings of major recent studies and programmes, and own observations mentioned in the report text, a number of key issues were identified. These are presented below together with initiatives that the national authorities and private sector operators and their associations can use, when further developing the trade enabling environment. Note that the term 'pointers' rather than 'recommendations' is used, as issues found in four TRD countries have to be considered. Conditions do vary substantially between the countries; hence, more detailed pointers/recommendations are only applicable at national level. The main recommendation is therefore dedicated to the private sector operators in terms of the Trade Readiness self-assessment tool: the Trade Readiness Questionnaire (TRQ), which has been adapted to the SME level of business in the fish product value chain. TRQ is presented in Annex 1 to Volume I: Main Text. It is not attached to the individual country reports. However, it can be lifted off the TRD for actual use (it is not repeated in the list below):

Issue 1: In adequate outreach capacity on food safety issues

There is insufficient institutional capacity and shortage of human resources with adequate training to perform SPS outreach to SMEs. The result is that the SPS agreement is not always complied with for domestic trade. It follows that fish control and inspection is inadequate and the fish products for human consumption may not qualify as safe to eat. In fact the local trader and operator also violate the SPS related commitments as there clearly is no documentation for traceability, which is an element of the Pre Requisite Programmes (PRP).

Pointer 1: It is important that guidelines, protocols, PRP manuals, HACCP plans and their means of verification are standardised, harmonised and designated/gazetted. This may lead towards compliance with the SPS agreement for fish products that are traded mostly intra-regionally

(smoked, sundried, salted products, chilled and even some frozen products):

- The professional association should be informed about these requirements including traceability in an easy to understand form and be able to disseminate these to the members;
- Build staff capacity with the CA to meet the needs at farm/factory level.

Issue 2: Trade cost and new products

Trade taxes exist and increase trade cost. Transport costs are also an issue. As a result, transaction costs for fish products are very high from Mauritius to continental Africa, making existing potential products less competitive. Trade promotion activities for the SME should also be improved.

Pointer 3: It is important that the fishery sector is not marginalized in the deliberations at national, regional or international level and that costs are reduced, or competitiveness increased by other means, the following should be done:

- Remove the export tax;
- Identify products via studies that are unique to Mauritius, have regional export potential, and do not suffer from the trade costs;
- Train company managers in the essentials of marketing new products;
- Provide export promotion assistance through EM and/or SMEDA to attend trade shows and identifying new markets also regional one;
- Develop standards for information typology and communication flows to ensure the information is structured and harmonised;
- Train staff in how to carry systematic market intelligence searches for fish products and input supply on the above basis;
- Organise regional sessions with similar agencies to participate with a view to establish common grounds of understanding and to build a network;

- Increase the number of artisanal fishermen to join the association and provide training of fishers in how use an association;
- Promote aquaculture especially the re-stocking the bays, lagoons for the benefit of local fishermen based on the development of a dedicated 'Aquaculture Investor's Guide'.

LIST OF PUBLICATIONS – LISTE DES PUBLICATIONS

SmartFish Programme

1. *Report of the Inception / Focal Point Meeting of the SmartFish Programme – Flic en Flac, Mauritius, 15th-16th June 2011*. REPORT/RAPPORT: SF/2011/01. August/Août 2011. SmartFish Programme. Indian Ocean Commission.
2. *Report of the First Steering Committee Meeting of the SmartFish Programme – Flic en Flac, Mauritius, 17th June 2011*. REPORT/RAPPORT: SF/2011/02. August/Août 2011. SmartFish Programme Indian Ocean Commission.
3. *Rapport de la réunion de présentation du programme SmartFish aux points focaux – Flic en Flac, Ile Maurice, 15-16 juin 2011*. REPORT/RAPPORT: SF/2011/03. August/Août 2011. SmartFish Programme. Indian Ocean Commission.
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5. *Regional Market Assessment (Supply and Demand)*. REPORT/RAPPORT: SF/2012/05. March/Mars 2012. SmartFish Programme. Indian Ocean Commission.
6. *Trade Assessment Study*. REPORT/RAPPORT: SF/2012/06. March/Mars 2012. SmartFish Programme. Indian Ocean Commission (120 pages).
7. *Gouvernance des Pêches Maritimes dans l'Ouest de l'Océan Indien*. REPORT/RAPPORT: SF/2012/07. June/Juin 2012. SmartFish Programme. Indian Ocean Commission.
8. *Value Chain Assessment of the Artisanal Fisheries – Mauritius*. REPORT/RAPPORT: SF/2012/08. June/Juin 2012. SmartFish Programme. Indian Ocean Commission.
9. *Kenya Fisheries Governance*. REPORT/RAPPORT: SF/2012/09. June/Juin 2012. SmartFish Programme. Indian Ocean Commission.
10. *Training Needs Analysis – Quality and Hygiene*: REPORT/RAPPORT: SF/2012/10. June/Juin 2012. SmartFish Programme. Indian Ocean Commission.
11. *A Review of Somalia's & (Semi-Autonomous Regions) Fisheries Legislation and Management*. REPORT/RAPPORT: SF/2012/11. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.
12. *Assessment of IUU Activities On Lake Victoria*. REPORT/RAPPORT: SF/2012/12. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.
13. *Review Of The Legal Framework for the ESA-IO Region*. REPORT/RAPPORT: SF/2012/13. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.
14. *Comprehensive capacity review to implement effective MCS in the ESA-IO Region*. REPORT/RAPPORT: SF/2012/14. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.
15. *Assessment of IUU Fishing in Lake Tanganyika*. REPORT/RAPPORT: SF/2012/15. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.

16. *Spirulina – A Livelihood and a Business Venture*. REPORT/RAPPORT: SF/2012/16. SmartFish Programme. June/ Juin 2012 Indian Ocean Commission.
17. *Diversification Study (Eco-Tourism and Recreational Fisheries)*. REPORT/RAPPORT: SF/2012/17. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.
18. *Value Chain Analysis of Fisheries Sector for Rodrigues*. REPORT/RAPPORT: SF/2012/18. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.
19. *Dagaa Value Chain Analysis and Proposal for Trade Development*. REPORT/RAPPORT: SF/2012/19. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.
20. *Operationalization of Fish Auction Market. (Feasibility Study)*. REPORT/RAPPORT: SF/2011/20. December/ Décembre 2011 SmartFish Programme. Indian Ocean Commission.
21. *Options to Reduce IUU Fishing in Kenya, Tanzania, Uganda and Zanzibar*: REPORT/RAPPORT: SF/2012/21. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
22. *Revitalization of Fisheries Research in Mauritius*. REPORT/RAPPORT: SF/2012/22. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
23. *Preparation of Draft Kenya Fisheries Management and Development Bill*: REPORT/RAPPORT: SF/2012/23. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
24. *Une Analyse Globale de la Chaîne D'approvisionnement de la Pêche de Crabe de Mangrove (Scylla serrate) à Madagascar*. REPORT/RAPPORT: SF/2012/24. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
25. *Analyse Globale de la Gouvernance et de la chaîne D'approvisionnement de la Pêche de Concombre de mer à Madagascar*. REPORT/RAPPORT: SF/2012/25. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
26. *Processing and Marketing of Small-Sized Pelagics in Eastern and Southern Africa*. REPORT/RAPPORT: SF/2012/26. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
27. *Report of the Second Steering Committee Meeting of the SmartFish Programme*. REPORT/RAPPORT: SF/2011/27. August/Août 2012. SmartFish Programme Indian Ocean Commission.
28. *The Farming of Seaweeds*. REPORT/RAPPORT: SF/2011/28. August/Août 2012. SmartFish Programme Indian Ocean Commission.
29. *Culture d'Algues Marines*. REPORT/RAPPORT: SF/2011/29. August/Août 2012. SmartFish Programme Indian Ocean Commission.
30. *Report of the Focal Point Meeting of the SmartFish Programme – Livingstone, Zambia, 28th – 29th February 2012*. REPORT/RAPPORT: SF/2011/30. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
31. *Appui à l'Elaboration d'une Strategie Nationale de Bonne Gouvernance des Peches Maritimes a Madagascar* REPORT/RAPPORT: SF/2012/31. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.

32. *A Review of Bycatch and Discard Issues in Indian Ocean Tuna Fisheries*. REPORT/RAPPORT: SF/2012/32. 2012 SmartFish Programme. Indian Ocean Commission.
33. *The Feasibility of Aquaponics in Mauritius*. REPORT/RAPPORT: SF/2012/33. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
34. *National Governance and Value Chain Analysis of Shark Fisheries in Madagascar*. REPORT/RAPPORT: SF/2012/34. August/Août 2012 SmartFish Programme. Indian Ocean Commission.
35. *Partners Meeting on Fisheries Strategy for the Esa-Io Region*. REPORT/RAPPORT: SF/2012/35. July/Juillet 2012 SmartFish Programme. Indian Ocean Commission.
36. *Potential for Energy Saving Measures in the Tuna Industry in the Southern Eastern Indian Ocean Region*. REPORT/RAPPORT: SF/2012/36. August/Août 2012 SmartFish Programme. Indian Ocean Commission (24 pages).
37. *Gestion des Ressources en Eau pour l'Industrie du Thon*. REPORT/RAPPORT: SF/2012/37. Octobre/October 2011 SmartFish Programme. Indian Ocean Commission.
38. *Implementation of a Regional Fisheries Strategy ESA-IO*. REPORT/RAPPORT: SF/2012/38. June/Juin 2012 SmartFish Programme. Indian Ocean Commission.

La bonne gouvernance et de la gestion des pêches et de l'aquaculture permettent d'améliorer la contribution du secteur à la sécurité alimentaire, au développement social, à la croissance économique et au commerce régional ; ceci en assurant par ailleurs une protection renforcée des ressources halieutiques et de leurs écosystèmes.

La Commission de l'Océan Indien (COI) ainsi que la COMESA (Common Market for Eastern and Southern Africa), l'EAC (East African Community) et l'IGAD (Inter-Governmental Authority on Development) ont développé des stratégies à cette fin et se sont engagés à promouvoir la pêche et l'aquaculture responsable.

SmartFish supporte la mise en œuvre de ces stratégies régionales en mettant l'accent sur le renforcement des capacités et des interventions connexes visant à :

- mettre en place des mécanismes pour la gestion et le développement durable des pêches ;
- développer un cadre de gouvernance des pêches au niveau régional ;
- renforcer le suivi-contrôle-surveillance pour les pêcheries partagées ;
- développer des stratégies et supporter des initiatives propres à accroître le commerce régional du poisson ;
- contribuer à la sécurité alimentaire en particulier par la réduction des pertes après captures et la diversification de la production.

SmartFish est financé par l'Union Européenne dans le cadre du 10^{ème} Fond Européen de Développement.

SmartFish est mis en œuvre par la COI en partenariat avec la COMESA, l'EAC et l'IGAD et en collaboration avec la SADC. Une collaboration étroite a également été développée avec les organisations régionales de pêche de la région. L'assistance technique est fournie par la FAO et le consortium Agrotec SpA.

By improving the governance and management of our fisheries and aquaculture development, we can also improve food security, social benefits, regional trade and increase economic growth, while also ensuring that we protect our fisheries resources and their ecosystems.

The Indian Ocean Commission (IOC), the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC) and the Inter-Governmental Authority on Development (IGAD) have developed strategies to that effect and committed to regional approaches to the promotion of responsible fisheries and aquaculture.

SmartFish is supporting the implementation of these regional fisheries strategies, through capacity building and related interventions aimed specifically at:

- implementing sustainable regional fisheries management and development;
- initiating a governance framework for sustainable regional fisheries;
- developing effective monitoring, control and surveillance for transboundary fisheries resources;
- developing regional trade strategies and implementing regional trade initiatives;
- contributing to food security through the reduction of post harvest losses and diversification.

SmartFish is financed by the European Union under the 10th European Development Fund.

SmartFish is implemented by the IOC in partnership with the COMESA, EAC, and IGAD and in collaboration with SADC. An effective collaboration with all relevant regional fisheries organisations has also been established. Technical support is provided by Food and Agriculture Organization (FAO) and the Agrotec SpA consortium.



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